

ARCHITECTURE CALIFORNIA

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Design and building concepts used in architecture and city planning are finding a new use as tools to teach children the basic skills of reading, writing and arithmetic, and how to use those skills to solve problems. "Every subject—science, government, history, sociology, economics, art—can be taught by studying the city as a system for meeting human needs," says Doreen Nelson, the Los Angeles teacher who created City Building Education Programs in 1966.

City Building is just what the name implies. In a year-long program, students in kindergarten through twelfth grades analyze their city and construct a city of the future. Verbal and nonverbal learning are merged through the techniques common to architecture, such as model building, flowcharts, presentation skills, three-dimensional conceptualization, and the use of graphics in decision making.

Architects, designers and planners who serve as advisors to City Building programs in local schools spend two hours a week working with students in the classroom and an additional two hours a week planning the program with the teacher.

Volunteers find that the City Building learning process is a two-way street. "I found myself exchanging the structured knowledge I had accumulated over my schooling years with clear, fresh, common sense ideas that the kids would con-

stantly surprise me with," says architect/consultant Charles Jany. "Beyond the educative exercise, the time spent in this special environment was, in fact, an even exchange of experiences—an adaptation of various minds to a constructive, goal-oriented process."

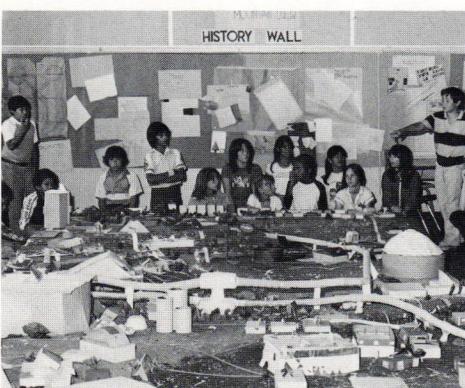
City Building has four phases. Phase I involves discovery and an awareness of the students' immediate environment. Students analyze their classroom and make a scale model of the room, complete with furniture. Proposals for redesign of the classroom are drawn up by the students, who then discuss the proposals and decide which plan to implement.

Next, their town undergoes a similar analysis. The "good" and "bad" features of the town are mapped, and Styrofoam models of the natural landscape are made. The class projects itself back in time to learn what natural features and cultural influences shaped the town's development.

During Phase II, students begin to build. An object—a building, a can of Coca-Cola, a toothbrush—is built to scale using different materials. The object's size, use and shape are changed until the object is transformed into a new form with a new function. "Transformation activities develop the ability of the student to look at something as it is now, the see where it came from, and where it might go in the future," says Doreen Nelson. "This facility to translate experience into alternatives for change appears to be integral to the mastery of intuitive thinking."

The individual's relationship to the group is emphasized in Phase III, when students form a government to oversee the building of their future city. Forms of government vary with each class, and range from tribes to monarchies, democracies and dictatorships. Students take on roles, becoming developers, officials, planning commissioners, property owners. Land parcels in the future city site are distributed to each student, and they negotiate with each other to reach a consensus on how the land will be developed.

In Phase IV, the process of building a model of the city of the future simulates real-life situations. The political, economic and technical decisions involved in a major community effort are encountered and resolved by a collaborative effort. Students "buy" land parcels, design buildings, pay taxes, negotiate



"No one involved sees their city as a 'toy,' a 'dollhouse,' or a replica of an existing place. The classroom is a city. The student is a mayor. Buildings are condemned, the population increases, governments are elected, an earthquake strikes. In the context of the city, learning is taken seriously because there are real reasons to learn. Students experience their capacity to change things, and believe in it."

—Doreen Nelson.



Photographs: Bobbie Mapstone

The Los Angeles Bonaventure Hotel under construction in a playground in Cerritos, California.

deeds, handle construction budgets, and resolve issues of ownership, privacy and eminent domain. The ways land is acquired, which land is valuable and why, and how land acquisition and value affect individuals and groups are emphasized.

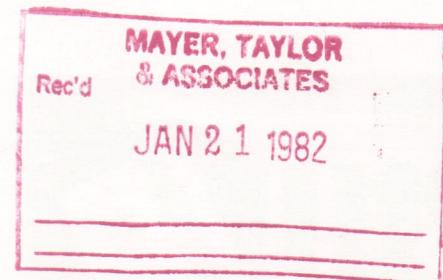
"City Building teaches kids to advocate for spatial issues," says Doreen Nelson. "Once they decide they don't want a freeway, they have to decide how to do without cars. They see how community and personal lifestyle choices influence the environment and understand the interdependence in the community."

Through City Building, students learn to solve problems, organize, invent, take responsibility, resolve conflicts, make decisions and take risks. Students observe, analyze, create possible solutions and evaluate those solutions based on their experience. Teachers and architect/consultants become resources for the students as they teach themselves and learn to respect their own ideas. As an eight-year-old boy at Soledad Canyon Elementary School explains with confidence, the structural solution for his planned rocket port is being worked out by "me and my architect."

Janice Fillip

A teacher training institute is being formed to instruct teachers across the country in City Building techniques. A physical space for the institute, fundraising ideas, and architects to teach the teachers are needed. Anyone interested in contributing time and talents to City Building should contact Doreen Nelson, The Center for City Building Educational Programs, 2210 Wilshire Blvd., Ste. 303, Santa Monica, CA 90403. Phone: (213) 828-1895.

CONTENTS



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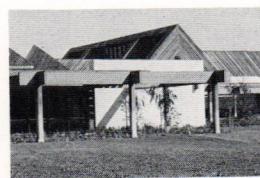
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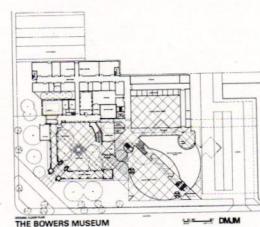
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	Ronald Ronconi, AIA
	Ernie Yoshino, AIA
	Eugene Fickes, AIA



The Nicolaysen Center, A School for Exceptional Children, by David Ruhnau, AIA. 14



Timpany Center, A Humanistic Statement, by Don Manzagol, AIA. 16



Barrier-Free Attitudes, by Jeanette Harvey. 18

Interview: Charles A. Jewett. 20

CCAIA '82: The Architect and the Office. 22

Departments:

On the Move: City Builders 2
News 4

Points of View: Early Learning Environments, by Sanford Hirshen, FAIA and Melinda Martin, M.A. 8

Commentary: Disability or Access?, by H. David Sokoloff, AIA. 13

From the Floor: Barrier-Free Design—It's the Law, by John Arthur Raeber, AIA. 28

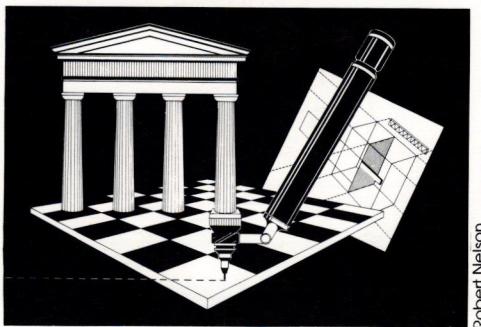
Cover:

The El Cajon Civic Center and City Hall, designed by The Blurock Partnership and associate architect Art Decker, AIA. Photograph by Wayne Thom.

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Robert Nelson

The Self-Cleaning House

If a self-cleaning house sounds too good to be true, you haven't heard about Frances Gabe. The 67-year-old woman is patenting 68 labor-saving devices she has designed for the home she is building in Newberg, Oregon.

No elbow grease will be needed to clean Mrs. Gabe's house. Simply push a button and an entire room is sprayed with soap and water. A sloped floor carries the water away and blowers dry the room. A resin finish waterproofs floor, ceiling and walls. Even the furniture—made from a special material invented by Mrs. Gabe—is washable.

In the self-cleaning kitchen, dirty dishes are stacked in a dishwasher cupboard which washes and stores them. "Why waste time loading a dishwasher, then unloading it and putting the dishes in a cupboard?" she asks. The house has a self-cleaning sink, tub, shower, toilet and fireplace that washes ashes down a drain.

The washer and dryer are being replaced, too. Clothes are hung up in a closet, a button is pushed, and the clothes are washed and dried while hanging on the rack.

Mrs. Gabe is building the self-cleaning house by herself. "I have been a builder all my life," she says. She expects to finish construction by the end of this year.

CCAIA Honors Contributions to California Architecture

Ten Californians received awards from the California Council, the American Institute of Architects at the annual convention recently held in Los Angeles. Award categories included a Special Award, Distinguished Service, Public Service, and Commendations for Excellence in Media, Education, and Technology and the Applied Arts.

The Reverend Dr. Robert H. Schuller, senior pastor and founder of the Garden Grove Community Church in Garden Grove, received CCAIA's Special Award in recognition of his personal and inspired leadership in realizing architectural excellence in the design of the Garden Grove Church, popularly known as the Crystal Cathedral.

The Distinguished Service award was presented to William L. Pereira, FAIA, Chairman of William L. Pereira Associates, Planners, Architects, Engineers in Los Angeles, in recognition of his prominent contributions to the built environment of California, his personal influence in the design of landmark projects around the world, and in celebration of his fiftieth year of distinguished accomplishment as a practicing architect.

Joseph Giovannini, architecture critic for the Los Angeles *Herald-Examiner*, was presented with a Commendation for Excellence in Media for his ability to effectively communicate to the general public the design rationale of significant architectural projects in southern California, and for his influential and successful articles on behalf of saving the landmark Los Angeles Public Library from destruction.

Professor Harold A. Stump, retired professor of architecture at the University of California, Berkeley, received a Commendation for Excellence in Education for his outstanding contribution to architecture education and his continuing influence on design excellence.

A Commendation for Excellence in Technology and Applied Arts was awarded to Sim Van der Ryn, AIA, of Van der Ryn, Calthorpe & Partners, Architects in Sausalito, for his dedication to the research, design and implementation of energy-related technology in general and, in particular, for his leadership as California State Architect in initiating and directing the development of major architectural projects that advance the state-of-the-art in energy conservation.

Public Service Awards in recognition of outstanding and selfless contributions to programs, projects or activities that directly benefit the general public were presented to Homer T. Delawie, FAIA, Homer Delawie Associates AIA, San Diego; Albert M. Dreyfuss, FAIA, Dreyfuss & Blackford Architects & Planners, Sacramento; Howard R. Lane, FAIA, Howard R. Lane, FAIA Associates, Encino; Jess F. Perez, AIA, Perez and Hurtado Architects, Inc., Orange;

and H. David Sokoloff, AIA, Sokoloff/Bennett Associates, San Francisco.

Architect Donates Land to San Diego Foundation

Edward Malone, AIA and Barbara Malone recently donated a 12,000 square foot, \$125,000 lot in La Jolla to the San Diego Architectural Foundation. The lot will be sold to fund the Foundation's Endowment Program.

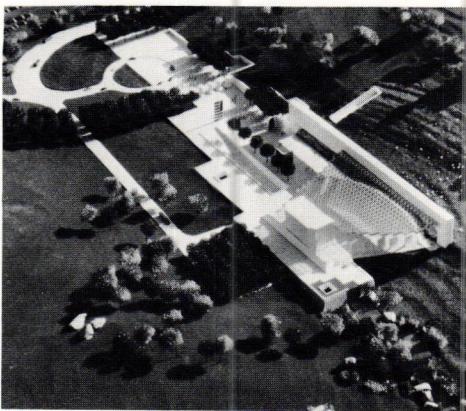
The San Diego Foundation was established in 1980 by the San Diego Chapter, AIA to carry out charitable and educational activities for the public and Chapter members.

Foundation president Mel Cole, AIA says that funds generated from the sale of the Malones' lot will be used for scholarships, public speaker programs and similar projects.

Local architects are participating in a competition to design residences for the site. The new owner will be encouraged to develop the winning design.

Solar Access Law

Iowa has enacted a solar access law which provides that anyone who installs a solar collector can assure access to the sun by obtaining a voluntary easement on the adjoining property. The easement provisions prevent construction or landscaping that might shade the solar collector. If a neighbor does not voluntarily agree to the easement, a solar access regulatory board can be petitioned to grant an involuntary solar access easement for



The Michigan firm of Kenneth Neumann & Associates Architects/Planners won the national competition to design the Rancho Bernardo Performing Arts Center in San Diego, a 15,000-person outdoor summer home for the San Diego Symphony and other local performing arts groups including ballet, opera and theater.

which the petitioner would monetarily compensate the adjoining property owner. The law also allows city and county subdivision ordinances to prohibit property deeds from imposing unreasonable restrictions on the use of solar collectors.

Vernacular Architecture Exhibit Planned

The Craft & Folk Art Museum is planning a series of collaborative exhibitions on American vernacular architecture, curated by Gere Kavanaugh and Charles Moore, FAIA. The shows will open in Los Angeles galleries in the fall of 1983. The Museum is collecting research and archival material and is seeking further participation. Contact: Blaine Mallory, Project Coordinator, Craft & Folk Art Museum, 5814 Wilshire Blvd., Los Angeles, CA 90036. Phone: (213) 937-5544.

Indoor Environmental Quality Seminar

A "Seminar on Indoor Environmental Quality and Health Toward an Ecology of Building," will be held on February 26, 1982, at Wurster Hall, University of California, Berkeley. The seminar is sponsored by the Architects in Government Committee of The American Institute of Architects.

The seminar will deal with case studies of indoor pollutants in offices, residences, schools and hospitals; the evolution of toxicity and health; sources of indoor pol-



The United States Pavilion at the 1982 World's Fair in Knoxville, Tennessee, is funded by a \$12.4 million Congressional appropriation and supplemental contributions from corporate donors. The Pavilion is designed by FABRAP, the architectural firm in Atlanta, Georgia whose plans won a nationwide competition sponsored by the U.S. Department of Commerce.

lution including ventilation materials, lighting, noise, equipment, furnishings and building configuration. Discussions will focus on design considerations, assessing problem buildings, professional responsibility and liability, roles of the architect and government agencies, revised programming and specification approaches.

The fee is \$45. For further information contact Barry Wasserman, FAIA, State Architect at (916) 445-4167 or Hal Levin, Center for Planning and Development Research, UCB at (415) 642-2896.

Construction Costs Climb

The cost of building materials rose an average of three percent during the second quarter of 1981, according to a survey that McGraw-Hill Cost Information Systems conducted with union and non-union sources, materials suppliers, labor consultants and general and specialty contractors.

The cost of concrete rose 1.4 percent; block, two percent; gypsum board, seven percent; asphalt shingles, 1.3 percent; steel, three percent; and conduit, 3.5 percent. Only three materials registered a price decline: lumber and plywood dropped by three percent, and copper pipe by six percent.

With the exception of shopping center developments, commercial projects in large western cities increased during 1981. But McGraw-Hill predicts that

over-all construction contracting for 1981 will achieve only a slight, six percent growth over the depressed 1980 level.

Publications

The 1981 National Directory of Community Design Centers now is available from CDCDA, 918 Sixteenth St., NW, Suite 603, Washington D.C. 20006.

Computer-Aided Building Design, a new publication by the National Electrical Contractors Association, provides review of computer applications associated with building energy analysis, electric power and light system design, computer graphics and selection of CABD approaches for architecture/engineering firms. Complimentary copies are available from your local NECA chapter.

The 1982 editions of the *Publicity Directory* (\$96) and the *Awards Directory* (\$48) can be obtained from *A/E Marketing Journal*, Box 11316, Newington, CT 06111.

Correction

The Paper Plane, an architectural and engineering newsletter owned and published by Michael R. Hough, originated most of the information in the word processor section of *Advanced Production Techniques*, a pamphlet published by CCAIA in November, 1979. The pamphlet failed to credit Mr. Hough or *The Paper Plane* as the source of this information. CCAIA regrets any inconvenience this omission may have caused.

Cyril Chem, AIA



CALENDAR

January
22-24

Designed Environments for All People, an international, interdisciplinary conference on barrier-free design at the United Nations headquarters in New York. Contact: Sherry Barndollar, Landscape Architecture Foundation, 1717 N St., NW, Washington, D.C. 20036. Phone: (202) 775-9426.

29-31

Women Up Front '82: Architectural Options, a conference sponsored by the Association of Women in Architecture to be held at Scripps College, Claremont, CA. Contact: Patricia Ford, AWA, 304 So. Broadway, Los Angeles, CA 90017. Phone: (213) 477-6509.

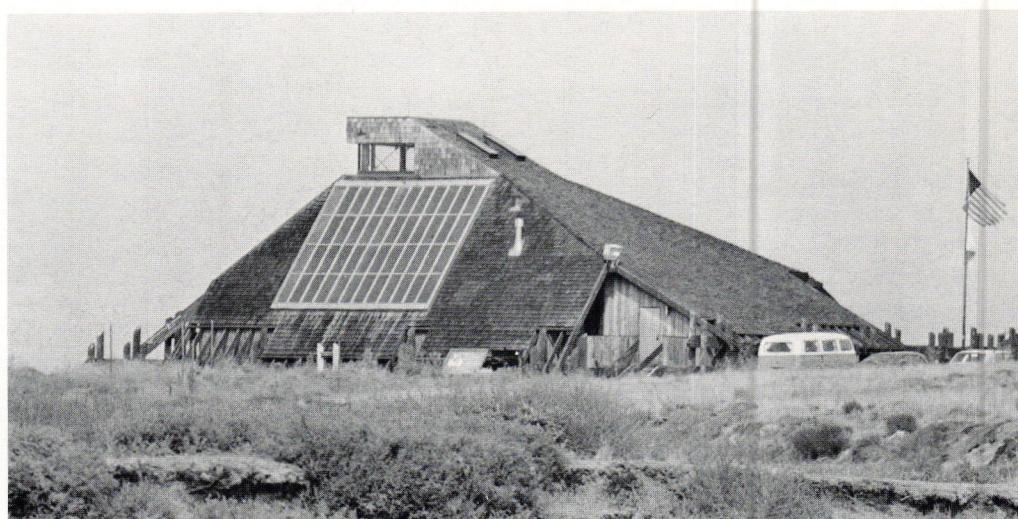
February
8-11

Specifications and Construction Contracts, a seminar sponsored by the Portland Chapter of the Construction Specifications Institute in Portland, OR. Contact: Richard Singer, CSI, 1150-17th Ave., N.W., Washington, D.C. 20036. Phone: (202) 833-2160.

March
26-28

CCAIA's Third Annual **Monterey Design Conference: West Coast Design from Baja to B.C.** Contact: Cindy Trantham, CCAIA, 1414 K St., Ste. 320, Sacramento, CA 95814. Phone: (916) 448-9082.

NEWS: ORCHIDS FOR ENERGY



Located in the baylands area south of San Francisco Bay, the Alviso Fish and Wildlife Center is an educational center for school age children to discover animals in their natural environment. The Jury notes that the building forms respond well to the landscape and complement the surroundings. Solar panels provide space heating and domestic hot water. Excellent window placement allows bayland breezes to cool the facility on hot days. Pacific Gas & Electric uses the Alviso Center to conduct solar education classes. Architect: Spencer Associates, Palo Alto.

Santa Clara County Building Boom

Commercial and industrial real estate development is booming in Santa Clara County. During the first half of 1981, 1.3 million square feet of office space was built, compared with 1.6 million square feet for all of 1980, according to Coldwell Banker, a real estate brokerage firm.

U.S. Bureau of Census figures show that building permits totalling over \$350 million in construction were issued in Santa Clara County in the first seven months of 1981—more than double the rate for 1980.

The R&D operations of major electronics companies occupy most of the new space. The building boom also accommodates expansion in manufacturing and in the banking, insurance, brokerage and title company industries.

Orchids for Energy

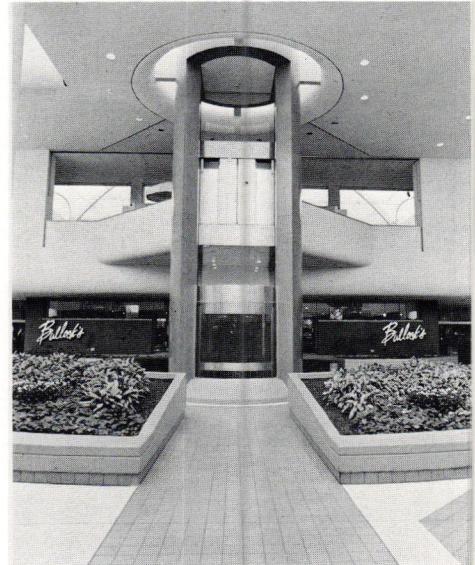
Twelve buildings received awards for outstanding energy-efficient architecture in the Orchids for Energy Competition sponsored by The American Institute of Architects/Santa Clara Valley Chapter. The competition was judged by a panel of community leaders.

"Energy-saving techniques are changing architecture," notes Jim Brenner, AIA, chairman of the Orchids for Energy Committee. "Before (the energy crunch), the most economical facility depended on cheap resources. When those resources are no longer there, design will have to change in response."

The Orchid awards emphasize energy-

efficiency over design and symbolize excellence in a building, a group of buildings, or a neighborhood or community project that contributes to the quality of the built environment. The awards are given by architects to acknowledge the community's support and to encourage ongoing community conservation goals.

"A lot of building owners are afraid to



The center core of Bullock's department store in San Jose is covered with a permanent fabric, teflon-coated roof which provides unusual ceiling geometry and incorporates daylight considerations. At night the area is lit indirectly with 1,000 watt metal halide outdoor luminaires mounted from the space frame. Architect: Environmental Planning and Research (EPR), San Francisco.

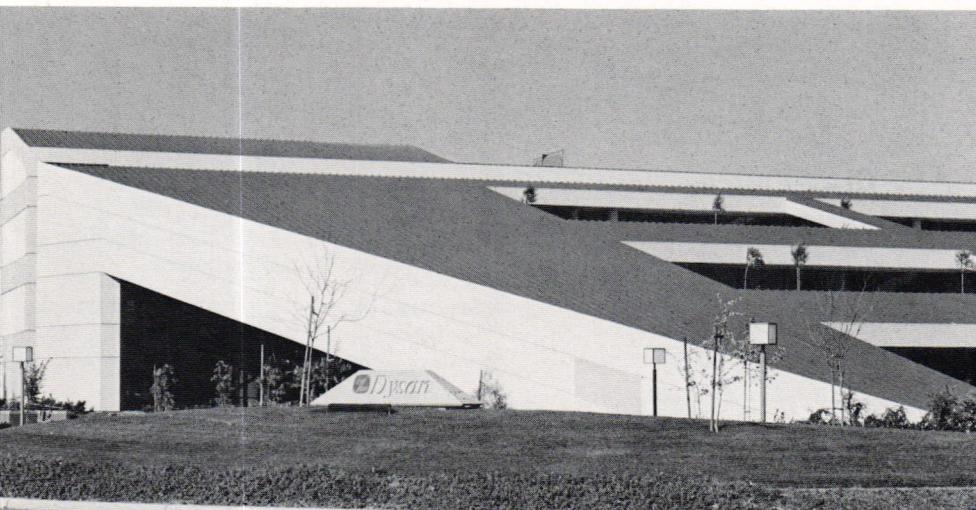


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COMPARE . . . THEN SPECIFY



Photographs: Tom Tuttle

While the Jury felt that there is no integrated, automatic response to energy conservation in the architecture of Silicon Valley, awards were given to acknowledge designs that take a step in the right direction. The Jury commented that the Dysan Corporation in Santa Clara is an appealing, dramatic statement as a piece of sculpture and as fine architecture. While the building received lower marks for energy-efficient design, the project was commended for integrating energy concerns as part of the formative aspects of the building design. Architect: FHMB Association, San Francisco.

try something unique," Brenner says. "We tried to identify projects which could encourage other architectural clients to undertake energy-related initiatives. We want the owner to be an advocate for energy conservation and take a risk."

Competition winners for residential architecture were the Frank Schiavo resi-

dence in San Jose for Mr. Schiavo's retrofitting of his tract home; the Alan DeGrange residence in Los Gatos for new construction (Alan DeGrange, AIA, architect); and the High Street Solar Condominiums in Palo Alto for efficiency in multiple-use construction (Spencer Associates, architect).

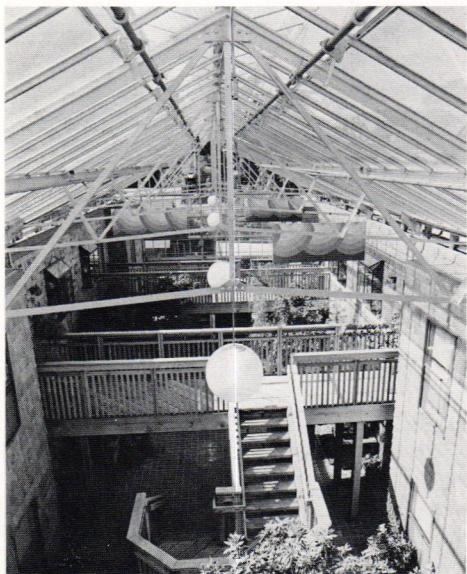
Awards for commercial architecture were presented to Bullock's department store in San Jose (Environmental Planning and Research, architect) and the Grand Central Sauna & Hot Tub Co. in Mountain View (Ira Kurlander, architect).

Dysan Corporation headquarters in Santa Clara (FHMB Inc., architect) and IBM's Santa Teresa Laboratory in San Jose (MBT Associates, architect) received awards for new industrial construction. The industrial retrofit winner was the Lockheed Solid Waste Disposal Plant in Sunnyvale (Lockheed Plant Engineering, designer).

Institutional architecture awards were presented to The Mountain View Police & Fire Administration building (Goodwin B. Steinberg & Associates, architect) and the Timpany Center in San Jose (Porter, Jensen, Hansen, Manzagol, AIA, architect).

In the community/public architecture category, the new construction award went to the Alviso Fish and Wildlife Center (Spencer Associates, architect.)

A special award for energy conservation efforts by nonarchitects was given jointly to the City of Sunnyvale, Hewlett-Packard Co. and the Sunnyvale Conservation Action Group.

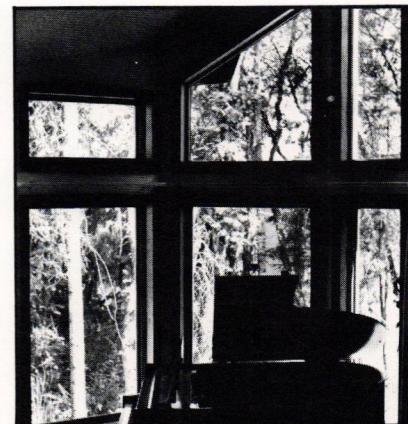


A series of twelve living units and one common unit, the High Street Solar Condominiums in Palo Alto have many of the energy efficient systems, including a central atrium with a skylight for passive solar heating of all units, solar hot water heating, solar heated radiant floor systems, wood burning stoves and a south orientation. Architect: Spencer Associates, Architects/Planners, Palo Alto.



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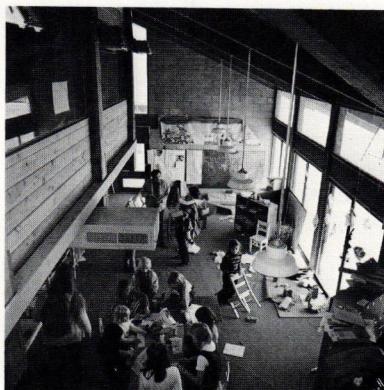
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POINTS OF VIEW:

The need for daycare facilities for California's 1,700,000 preschool-age children is hitting its highest peak since the 1940s. Many families today need two salaries to make ends meet. And a growing number of families are headed by one working parent—in 1979 alone, 275,000 single working women in California had children under five years of age. The burgeoning demand for daycare facilities has an impact on architects who design new or remodeled childcare facilities.



Photographs: Joshua Freiwald

Longview School

At best, the creation of an early learning environment is a collaborative effort between the architect and the educator. In the following dialogue, architect Sanford Hirshen, FAIA and educator Melinda Martin, M.A. review the architectural history of early learning environments, explore the special problems faced in designing daycare centers, and speculate on how public demand for childcare will affect architects in the years to come.

Sandy: Let's start with a summary of the current situation in early learning education.

Melinda: There are two arenas in early learning education: daycare and preschool. The developmental intent of both programs is similar, but programmatic and building needs are quite different because of the time spent within the building.

Preschool is a relatively short program, usually half a day. Daycare means children are in one place from very early in the morning until late in the evening. Preschool denotes a type of program—education for young children. Preschools exist within daycare programs, and they also exist independently. Today any childcare program worth its salt would have a firm preschool program embedded into it. The parents demand that.

The daycare facility must accommodate napping, eating, toileting, and staff

space, so it has to be bigger than a preschool facility. A preschool doesn't require as many auxiliary facilities.

Sandy: Public institutions that provide both daycare and preschool activities include public school systems . . .

Melinda: Or any institution that decides to be an umbrella agency, such as a county agency, the YMCA, a hospital or a private group of people.

Sandy: What is the operative situation for architects now serving this field?

Melinda: As both parents become wage earners in more middle class families, they need daycare for their children and require a level of quality for which they can afford to pay. Based on income guidelines, most middle class children are not eligible to use public institutions. This leaves an open field for developing private daycare centers as businesses.

Architects can find opportunities remodeling or designing houses to suit the needs of these private centers, doing interior design, exterior playground work, and remodeling unused portable structures which school districts have discarded.

As for new construction, I can't see any money for it in the next five or six years. Instead, a lot of creative work will be done with existing facilities. It's absolutely imperative that architects program and design such buildings.

Sandy: To understand the future of childcare, it might be useful to describe the evolution of the field, and talk about the physical models that reflected various approaches to childcare.

The major organized childcare programs that predate World War II were essentially unique and isolated examples of philanthropic effort. Fine buildings in the conventional style of the times were built to accommodate childcare programs. They resembled big residences and usually didn't hold many children. The daycare facilities built from 1941-45 usually were simple, cheap prefabricated structures built in a hurry to respond to wartime circumstances.

Melinda: During the 1940s, the government funded daycare centers that ran 24 hours a day throughout the country. They usually were sited in the middle of huge housing tracts that housed people working in war industry. Those daycare centers were minimal. Their main emphasis was on sleep and good nutrition and exercise. These programs had very

Early Learning Environments

little to do with education. It was custodial care of children.

Most of those facilities were destroyed in 1945. The government offered the states the option of continuing them, but only New York and California did choose to pick them up. So California has a unique system of daycare centers run from these old facilities and administered through the public schools. This system maintained itself until the 1960s when President Johnson's poverty program and the resultant Headstart Program tremendously influenced custodial daycare.

Sandy: In the 1960s, there was the "church basement" syndrome. Given limited amounts of money, these daycare efforts opted to focus on programs rather than facilities. Initially the facilities were renovated existing spaces. Only after daycare programs began to expand did public institutions build new facilities.

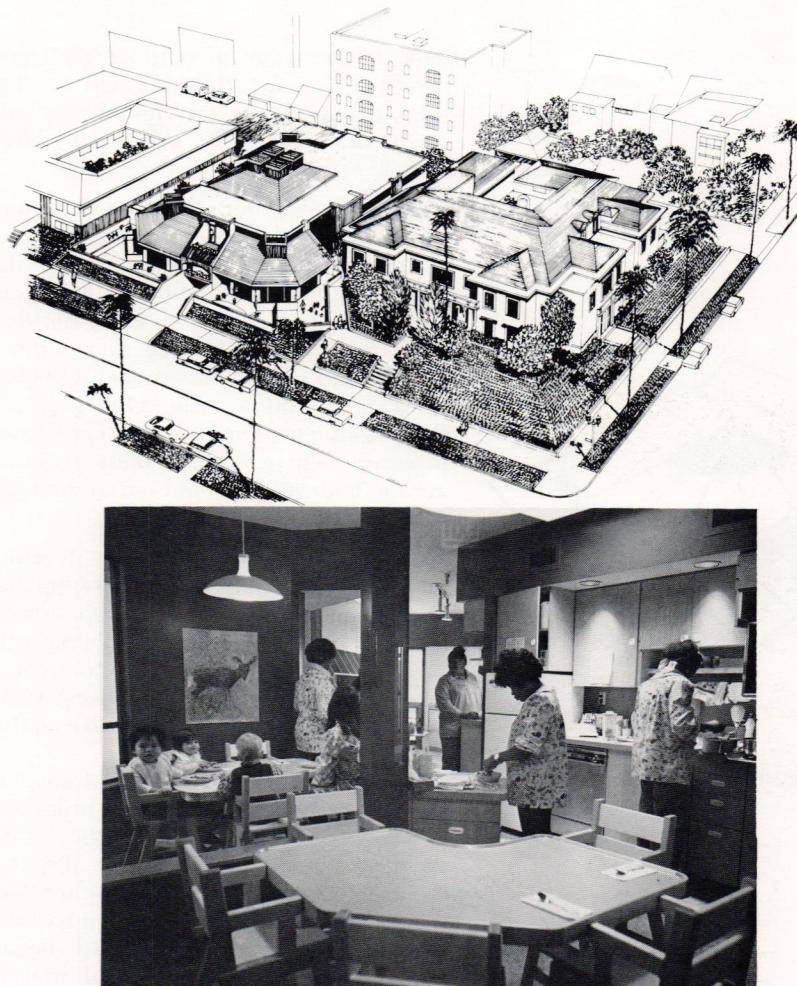
Many of the facilities were built with portable, prefabricated building techniques because they had to be constructed quickly and nobody knew how long the programs would last. So permanent, custom-built childcare centers are a rarity. Now we're experiencing another cycle of renovation, with only isolated examples of custom-built facilities in the public sector. Those often are university-based facilities.

Melinda: The Harold E. Jones Child Study Center in Berkeley, designed by Esherick Homsey Dodge and Davis, serves as a tastefully-designed model facility for countless engineers, architects and teachers.

Sandy: We used the Harold E. Jones Child Study Center as a model in developing an infant care center for the Big Sister League in Los Angeles. We were venturing into new ground, and had an opportunity to make a prototype. Seeing a project as a prototype allows you to put more energy into it, because you perceive it as being replicated. The filterdown of this kind of effort is very valuable to an architect.

Melinda: It's also valuable in ways that an architect never realizes. Ideas explored in a prototype building are taken back by the teachers and incorporated into their own facilities, without the use of an architect.

Sandy: A decent investment of money was made in new childcare facilities during the 1960s and 1970s. But even in the heyday of child development—during

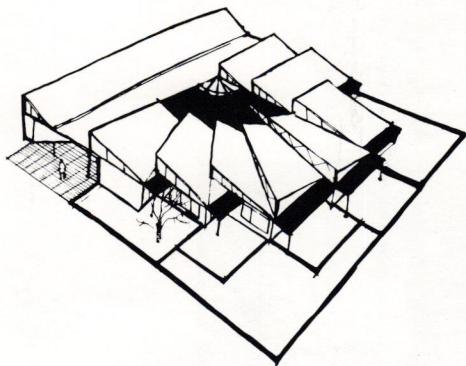


The Big Sister League
The Colleague Infant Care Center

President Johnson's "War on Poverty"—the facilities built normally were adapted and reused spaces.

In my own personal experience working with migrant farm workers in rural areas of California during the 1960s, the idea of building special childcare facilities became very important. Most of the buildings were either rather simple structures or portable buildings, as opposed to conventionally constructed buildings. I remember the first center built specifically to accommodate infants was a simple prefab metal building.

An important corollary event in the evolution of childcare architecture is the research into child development and the recognition and implementation of ideas, in part from Europe, about outdoor play for children. Innovative design work for outdoor play environments was affected by European and Scandinavian adventure playgrounds. Implementation of that idea into America generated a new



Migrant Worker Infant Care Center

look at the value of outdoor play and creative play for children. Up to that time, playgrounds were viewed very narrowly as a place for individual, large muscle activity.

Melinda: Outdoor playground equipment offers the designer a great chance to be truly creative. Children's physical development has a lot to do with their mental development. Children who can ride a two-wheel bike and swing and climb a ladder tend to learn faster and do better in reading and writing. One program that is gaining strength is the "kindergym program" where many of these activities are methodically thought out and taught to children.

Sandy: Questions of muscle development, visual acuity, color sense, spatial relationships are all primary opportunities to use the environment. We recently had an opportunity to build a tot gym at St. Vincent's Day Home in west Oakland. It was very enjoyable to take on this new task.

Getting back to the history of how architects begin to model new programs and new building types—in the 1960s, architects were searching for physical models, looking for prototypes other than the few that existed in this country. We looked to societies which had begun much earlier to deal with children in groups: Israel, Scandinavia, Russia—places where the socialization of the child by the state is part of the political and economic philosophy of the society.

Melinda: The institutions that impress me in terms of design and space, and in terms of a value system, are in China and Russia. Everything is a community project. Playing means getting other people involved with you. Sharing is a major emphasis. And a great number of elements in the program and on the playground are designed in order for that to happen.

In this country, our value system has gone the other way. Everything is designed for a child to approach and work on by himself, to have his own apparatus, her own little play world. The emphasis is on a child learning ownership. Sharing comes afterward.

Sandy: An architect can physically bring balance between group activity and private activity.

Melinda: That's an absolutely critical planning issue, which I don't believe teachers have the expertise in space planning to solve.

Sandy: How does an architect enter childcare design? How does he or she learn enough about the field to know what the issues are?

Melinda: The first thing is to talk with the professionals working within the program, because they're quite articulate about their program goals and philosophies. Spend time watching what they're doing, how they use individual space. Ask to be taken to quality programs and see what the issues are in practice.

There are subtleties for which the architect or planner can be the solution-maker, but the teacher can't—the subtleties of size and scale, or the use of color. I've made that mistake myself. Trying to make a drab building exciting and colorful, I've overused color by painting tables, chairs, buildings, cubbies, so that the actual color in the room is overstimulating and creates disquiet. A child is very sensitive to textures and feel. Flooring, carpet, seating arrangement and softness/hardness are real architectural concerns in designing early learning environments.

Another concern is the need for organization. Architects must understand how much material is in the room, how much storage is needed, and how materials must be accessible to the kids and adults.

Site planning is another issue. At my particular facility, the way the building is sited means that the children are playing in the wind all day long. If the architect had just looked at the wind pattern and turned the facility around, that wouldn't have happened.

Sandy: Perhaps the next area to cover is future scenarios. What does the future of childcare programs and facilities look like?

Melinda: The large, publicly supported daycare center is the dinosaur of our times. In trying to save money in publicly supported childcare, the government will move toward the voucher system run through a clearing agency—probably a county or city agency—that allows families to receive vouchers into family daycare homes. I suspect there will be extended daycare programs in the future as the country begins to realize that children from the ages of five to 12 are unsupervised in the afternoon and this is leading to problems such as juvenile delinquency.

Sandy: Can we anticipate that social changes already extant—two working

parents in a family, single parents who are the primary wage earners, women deciding to return to careers very quickly after having a child—will demand expanded daycare programs?

Melinda: Yes. I'm very curious to see how industry and corporations will handle childcare. Sooner or later, corporate America will have to respond to the need for daycare. I'm guessing, but my suspicion is that the unions will begin presenting the demand for childcare as a fringe benefit, and that corporations will either deal with it on site or provide money that can be used in a voucher system.

Sandy: In the 1960s, we placed very high value on the participation of the parents in creating early learning environments, partly because the programs were minimally funded and the decisions about running those programs consistently favored the programs over the environment.

Melinda: With all the funding for the past 15 years coming from the federal and state governments, we have emphasized parent participation—giving parents a real political say in the development of childcare programs. This means that childcare facilities have to accommodate parents as well as children.

In Europe, particularly in countries where the mother is at home, childcare programs are designed differently. The teachers and the community need to make a separation between the child and the family. The child is such a part of the family that the family has a hard time letting go. The actual childcare institution is designed so that the parent leaves the child at the gate and doesn't ever enter the classroom. The child stays with the teacher. I don't foresee that occurring here.

I see childcare design evolving totally to accommodate the parent. Driveways that enter right into the schoolyard will allow the child to leave the car and enter into the center on his own, showing independence and letting the parent have an easy access.

The best centers I have seen have a welcoming space which allows parents to talk to each other as they come in, perhaps sit on couches and have coffee. Childcare facilities should have a space for parents to have school meetings, community programs. Interior space needs to accommodate five to six adults, as well as 25–30 children.

The best way to have parents learn about their kids is to have them watch the children. There should be some area within the building design for the parent to sit and watch the room without the child knowing.

Sandy: You are describing a level of increased sophistication on the part of parents as consumers in the future. There's an optimism that architects will have an opportunity to work in this field again in a creative way and perform to high standards.

In an area like this, there is always the need to spend a great deal of time understanding the problem. We talked about almost every issue an architect has to face: learning problematically all the social, behavioral and physiological issues. And yet on the other side, there are terrific problems of budget constraints and time constraints.

Childcare environments are part of the "investment" in our society and our children that politicians always talk about. If architects can make these environments work, we have a real opportunity to make a tremendous impact on the future.

Melinda Martin, M.A. is Director of Early Childhood Education at the Albany Unified School District in Albany, California. Sanford Hirshen, FAIA is a partner at Hirshen Gammill Trumbo in Berkeley, California.

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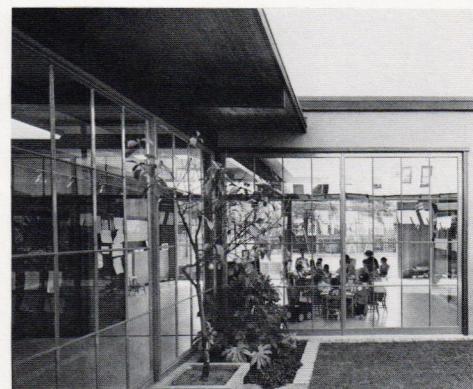
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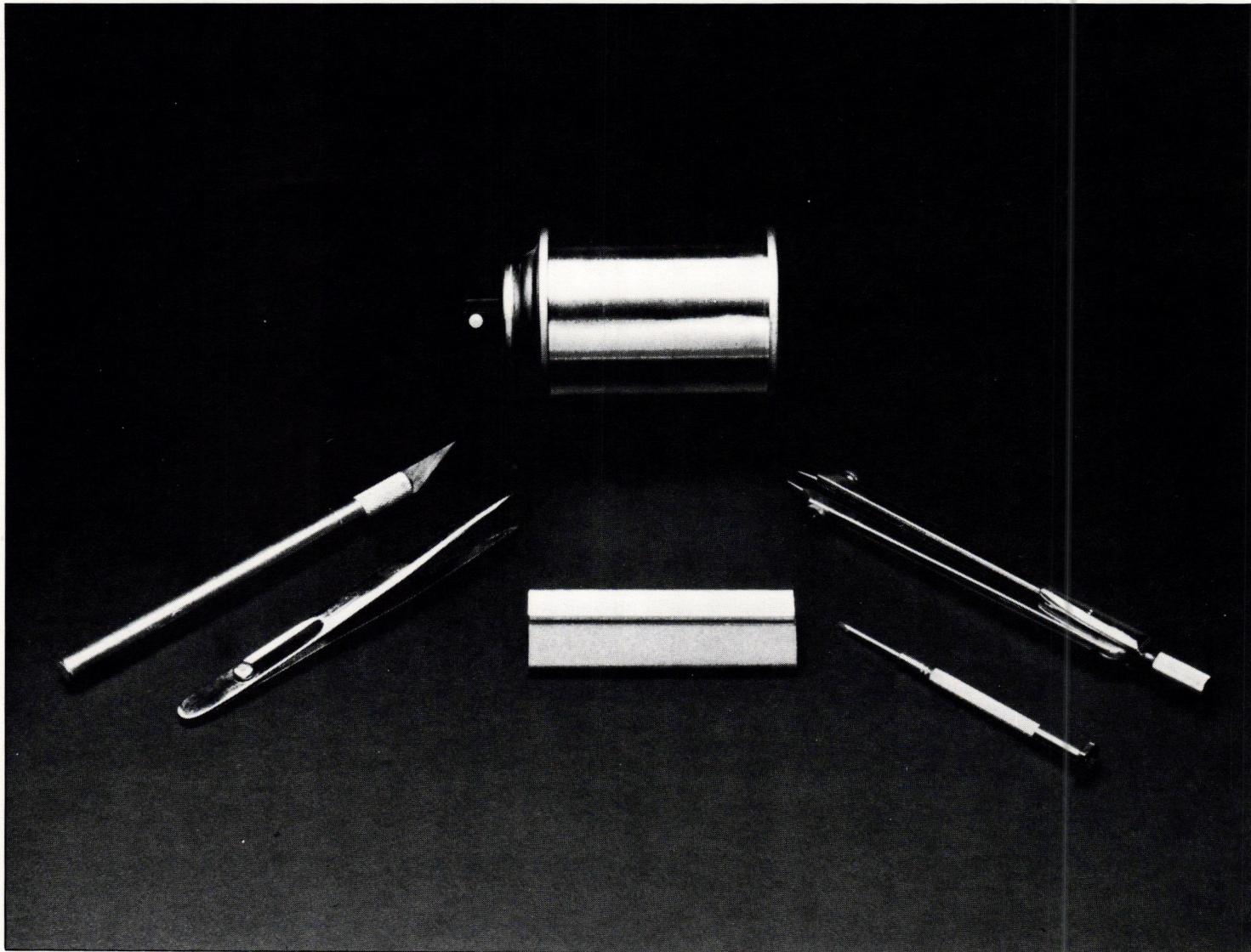
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Roy Flamm

Harold E. Jones Child Study Center



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Disability or Access?

For people with disabilities, the quality of their lives depends to a large extent upon the shape of the built environment which, for them, can be either a cage or a land of opportunity. We architects play a major role in shaping that environment.

Who are these disabled people? We are familiar with those who stand out visibly, like a person with a missing limb or someone who is blind. But disabilities include a wider range of problems such as speech impairment, limited vision, hearing deficiency, emotional disturbance, mental illness, epilepsy, heart disease, stroke aftermath, pregnancy and conditions caused by aging.

When we talk about the disabled, we are talking about more than *seven million* people in California alone. And the numbers are increasing as improved medical knowledge and treatment keep more people alive, and keep them alive longer. When we talk about people with disabilities, we are talking about a third of our population! And we may be talking about ourselves.

Harvey Stevens, who heads the Wisconsin service system for disabled people, has a useful way of looking at disability. He views disability in terms of the need to depend upon other people. We all go through a prescribed set of life-stages, although some people go through more stages than others. On this journey everyone—at one time or another, to a greater or lesser degree—is dependent. Every infant, every senile person is totally dependent on others. Every healthy, successful architect is dependent at times.

Disability is a condition that prevents a person from being independent without help. It follows logically that help should be given only when needed, and never more than is required, lest the help increase the dependency.

A gang toilet without partitions in an institution serving mentally retarded people indicates how they are perceived, just as the private dining room of the president of a law firm reflects how *he* is perceived. The messages sent by built environments can assist or handicap people with disabilities.

Disability is more than a physical or mental impairment. It is also the damaged self-image which results from being perceived as incompetent, and therefore unworthy. The built environment can either honor the disabled person and alleviate the burden of his disability, or it can devalue him and thus increase his load.

In *The Dignity of Risk*, Bob Perske suggests that we should say to disabled people:

You are a human being and so you have the right to live as other humans live, even to the point where we will not take all the danger of human life from you . . . there can be a dehumanizing indignity in safety."

The architect's design, controlled by his or her perceptions, influences the extent to which disabled people are allowed to participate in society by affecting their potential for developing independence.

Architects must understand the nature of their own perceptions and the way those perceptions affect design. These perceptions often cause design decisions which run counter to the newly-adopted American Institute of Architects' ethical principles which state:

"Members should thoughtfully consider the social and environmental impact of their work . . . members should promote public awareness and appreciation of the role of the built environment in advancing the quality of life."

by H. David Sokoloff, AIA

Some architects feel that design problems caused by disabilities are a nuisance. They think all that's necessary is to get the proper dimensions out of a handbook and to know something about hardware. They see the whole business as a mess of conflicting prescriptive regulations about which a variety of private and public agencies cannot agree.

Architects must see the problems of disabled people within the context of their own concerns. Ed Roberts, director of the California State Department of Rehabilitation—who happens to be quadriplegic—once said, "To deny the rights of any person is to deny our own humanity." For architects to deny people's rights because of ignorance would be tragic. Only by understanding how disabled people define themselves can we architects know what people with disabilities feel and think.

In *Who Designs America*, Susan Langer asks:

"What is the nature of design? What is the measure of goodness or badness in it? What relation can it possibly have to any important factor of human life, such as mental health, amorality, intellectual advance, or even happiness? Such questions really broach the whole issue of the nature and the import of art."

Will future environments which control the lives of disabled people be designed by architects whose main interest is esoteric form? Will architects whose penchant for the avant-garde makes their work difficult to distinguish from *The Gong Show* be sensitive to the user's problems? Will they know that an aged person whose eyesight is failing could be diagnosed an incontinent because it is difficult to distinguish a white toilet seat from a light-colored floor in a bathroom where the lighting is soft and casts no shadows? Will the architect know—or even care—that a nonrectilinear, irregular space with a ceiling that seems to float could be a therapeutic disaster for a mentally ill patient in incipient crisis who has difficulty knowing where "up" is, where the outside begins, and where the edges are?

Accessibility means more than being able to "get there." It means being able to get there independently. It means being able to use the "there" when you arrive. It also implies that we should pay attention to the kind of "there" we create.

Some architects may ask whether such an interpretation of accessibility goes beyond the scope of strictly architectural problems and the architect's responsibility. In *Design Awareness*, Robert Sommer says:

"It is naive to image a designer as a technical expert who drafts the pros and cons of various alternatives and does not make his own recommendation."

We architects should not pretend that we are involved only in creating three-dimensional abstract sculpture. We must accept responsibility for what we create as expressing society's role expectations for disabled people.

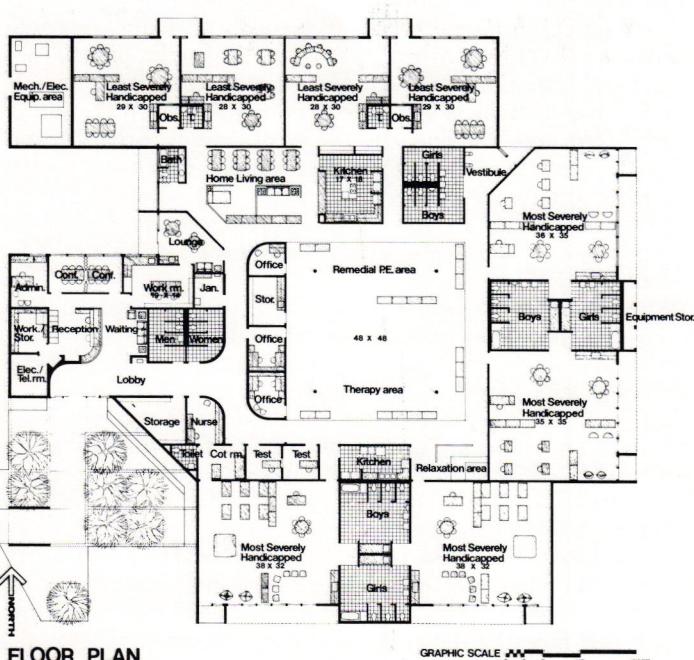
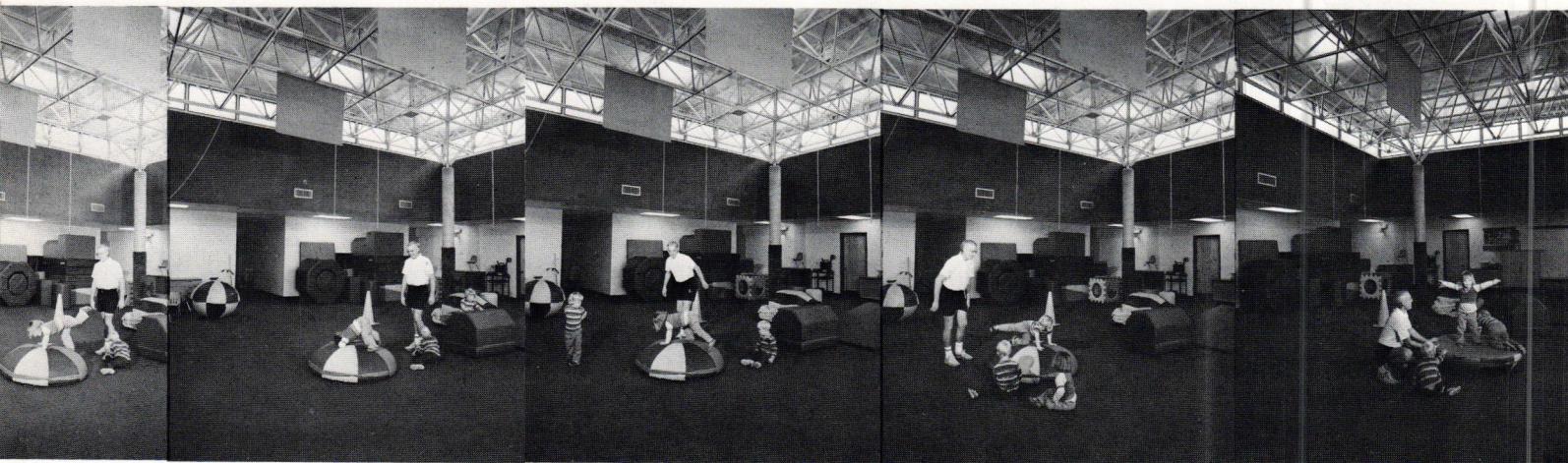
For people who are disabled, the attitudes and perceptions of architects are critical. Their futures depend on it. And so, to some extent, does the future of society itself, since the measure of our civilization is the quality of life afforded those who cannot manage for themselves.

For architects, the issue is just as important. How well we respond to the challenge of shaping future built environments that are sensitive to human concerns may well determine how society will measure the value of our profession.

H. David Sokoloff, a partner at Sokoloff/Bennett Associates in San Francisco, received a 1981 Public Service Award from CCAIA.

The Nicolaysen Center, A School for Exceptional Children

by David Ruhnau, AIA



FLOOR PLAN

Our involvement in the Nicolaysen Center in Escondido started when I read in a local paper that the Escondido Union School District was contemplating a new school for exceptional children, to consist of a total facility for MH, TMR and autistic children (54 pupil capacity) and a development center (20 pupil capacity). Our proposal package was presented to the Architectural Selection Committee and through an extensive review, screening and interview process, our firm was chosen to design the project.

A school for handicapped children must take into consideration very special user needs. The Nicolaysen Center provides special facilities and educational programs for the instruction of trainable mentally retarded (TMR), multihandicapped (MH) and developmentally disabled children (DCH). The major handicap conditions which are considered developmentally disabled include autism, cerebral palsy, and neurological and neuromuscular disorders. Other categories of handicaps which schools might deal with involve blind or partially sighted people, those with hearing disabilities or emotionally handicapped children who seem to have no apparent physical disability, but may suffer extreme trauma at the slightest provocation.

To identify our user needs, we sent questionnaires to the Center's staff, parents and various persons concerned with the needs of the handicapped. The questionnaire identified the special needs related to facilities, activities, equipment and support staff. We visited many facilities for the handicapped, including Revere School (DCH), San Diego; Greg Rogers School (TMR, MH), Chula Vista; Ann Daly School (TMR),

Bonita; California Avenue School, Vista; Esperanza School (TMR), Saddleback Valley; Glendale School (DCH), Glendale; and Forest Meadows School (DCH), Daly City. We also met with representatives of state organizations such as the Department of Education, Bureau of School Facilities Planning, the Office of the State Architect, Handicapped Compliance Section and California Schools Crippled Children's Services. We also drew upon our own experiences designing other schools and hospital facilities for the handicapped.

The interrelated design of classrooms and support areas at the Nicolaysen Center responds to the fact that children are grouped into classes on the basis of age and developmental level. The Center contains a total of eight classrooms built around a central physical education/therapy area, and has a specifically designed living skills area for trainable and multi-handicapped children. The large central p.e./therapy area with clerestory windows is designed as a partition-free space, allowing maximum flexibility in defining spaces for physical education teachers, physical therapists and occupational therapists. It also serves as a meeting area for large groups.

In planning the interior space, we felt a spaceframe system was desirable, not only from a structural and aesthetic standpoint, but to provide necessary apparatus suspension at approximately 5-foot intervals in accordance with the school's program of therapy. The spaceframe also provides an opportunity to install indirect lighting, and creates an open, airy atmosphere completely different from the visual environment of the remaining teaching spaces.

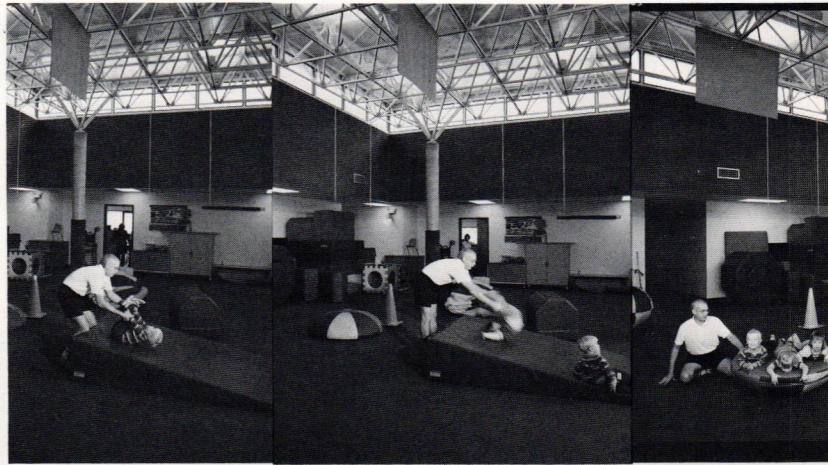
Four spacious classrooms for profoundly handicapped children accommodate large therapy equipment, wheelchairs and adaptive furniture, while still maintaining a classroom atmosphere. The windows are floor-to-ceiling, allowing nonambulatory children an awareness of the outside environment. The toilet areas between these classrooms are designed for the special needs of the severely handicapped and greatly facilitate their toilet training. The area includes changing tables, bathing areas, toilets and sinks for both ambulatory and wheelchair-confined children.

The Center also contains four classrooms for trainable and multi-handicapped children and an extensive area designed for the teaching of home living skills. The kitchen in the living skills area is child size and designed to facilitate the teaching of home economic skills and activities of daily living in a "home" environment. There is an apartment style bathroom as well as "public like" restrooms to give students the opportunity to use both types of facilities. The toilet rooms are provided with sheet vinyl flooring instead of ceramic tile to create a warmer, more homey atmosphere.

Several special detail and design elements are integrated into the Nicolaysen Center. The walls at the corridor intersections have large radii to ease the movement of children with ambulatory difficulties. All cabinet work and countertops are detailed with rounded corners and edges to further protect from injury students who do not have complete control of their faculties.

Carpeting provides a safe floor surface, as well as one that is familiar and comfortable, suggesting a home environment. The colors and materials are developed to support the learning and developmental goals of the school and to provide a fun, safe environment for the children. Bright accent colors give visual stimulation and serve as a teaching instrument to enhance and support the children's color perception. Indirect, low brightness lighting is used to protect those children who have a tendency to focus on intense light sources, thus putting themselves into a trance or causing eye damage.

The Nicolaysen Center is located adjacent to an existing elementary school. This strengthens the possibility of main-



Ron Christensen

streaming some of the Center's students into the elementary school. An entry plaza to the Center provides direct access from the mini-bus loading area to the educational facility through a pleasant transitional exterior space, and also allows control from the Administration area of children entering and leaving the school. All classrooms have direct access to the exterior, further heightening the experience of living with everyday outdoor activities.

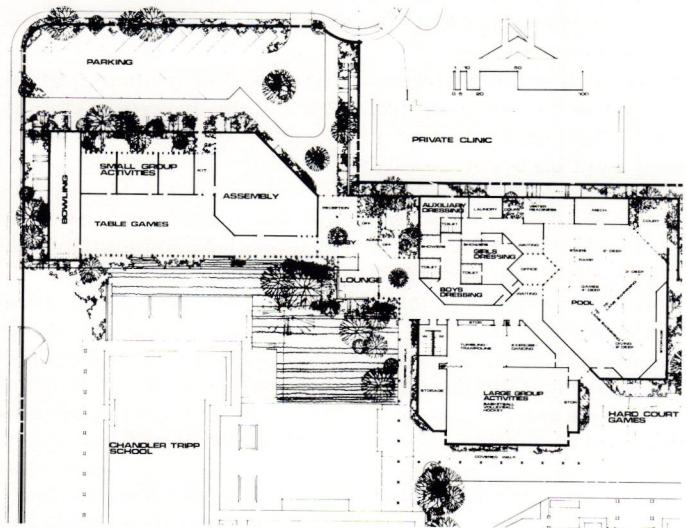
Our work at the Nicolaysen Center was instrumental in the selection of our firm as architects for the Riverside County Schools Special Education Program to design several educational facilities for orthopedically and developmentally handicapped students throughout Riverside County. The project will cover a full range of handicaps—blind and partially sighted, deaf and hard of hearing, severely emotionally disturbed, autistic and physically impaired.

Our involvement in the design of the Nicolaysen Center and other similar facilities has heightened our awareness of our physical and mental faculties. I feel that designing for the physically and mentally handicapped has added a new dimension to our work, teaching us to design facilities so that they are sensitive to the needs of a broader spectrum of people.

David Ruhnau, AIA is a partner in the Carlsbad and Riverside firm of Ruhnau, Evans, Ruhnau, Associates. The firm has designed facilities for 25 school districts throughout southern California, and has received 32 awards for design excellence, of which 18 are from the American Association of School Administrators and The American Institute of Architects for school building projects.

Timpany Center, A Humanistic Statement

by Don Manzagol, AIA



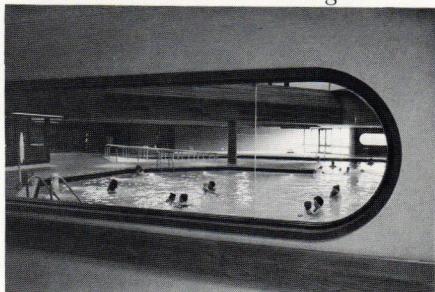
Don Manzagol, AIA is an architect-partner in the San Jose firm of Porter.Jensen.Hansen.Manzagol Architects, AIA. He was principal in charge of design for the Timpany Center.



The major program requirement for the Timpany Center in San Jose, California, was to create a totally barrier-free facility in which physically and mentally handicapped persons of all ages could participate in physical education and recreation experiences. The Center is humanistic in design, scale, aesthetics and overall environment. We at Porter.Jensen.Hansen. Manzagol Architects, AIA wanted this building to be a statement of humanism—a comfortable environment rather than a sterile institution.

Timpany Center looks more like a private club than an institution. The facility fosters a sense of independence for handicapped persons who experience a variety of physical activities and develop skills and self-confidence. The Center balances the need to educate and train the handicapped to cope with the real world and the need to release them from their handicaps.

The facility has received a number of awards, including the 1979 Honor Award from the Santa Clara Valley Chapter, AIA and the 1980 Shirley Cooper Award from the American Association of School Administrators and the AIA, signifying the best educational facility architecture in the country for that year. The jury for the Shirley Cooper Award described the Timpany Center as an "architectural gem."



Over 1900 people in dozens of special education programs throughout Santa Clara County use the Timpany Center for their physical education and recreation needs. Age groups using the Center range from 18 months to 21 years. The Center is located next to three facilities for the handicapped—the Chandler Tripp School for orthopedically handicapped, the Hope Center for mentally retarded adults, and the Joseph M. McKinnon School for Trainable Mentally Retarded. Santa Clara County Valley Medical Center is nearby. Staff from these centers, the County Superintendent's Office, and the San Jose Parks and Recreation Department were among the hundreds of professionals, parents and handicapped individuals involved with us in planning the Timpany Center.

Timpany Center is built on a restricted site of small, irregular shape, almost hidden by existing buildings. Site design required integrating the Center into surrounding special education facilities, promoting shared outdoor activities with these facilities, and providing barrier-free pedestrian access to and from these facilities. The plan also had to provide for future construction at the Center to include bowling lanes, a full kitchen and serving area, a large activity auditorium with stage, and several optional spaces for offices and a fitness center.

Energy considerations had a strong influence on the building design. High sloping roofs pitched at 45 degrees accommodate active solar collectors on the south and clerestory windows on the north. Wood trellising shades windows with southern and western exposures. Natural daylight is emphasized at Timpany

Center. Tall wood roof monitors bring north and east light into the lobby area, and windows are strategically located to create visual and spatial experiences.

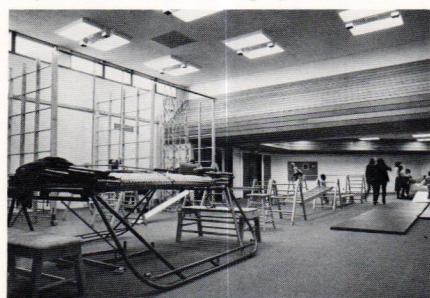
Natural redwood boards and stucco are the primary exterior materials. The bermed earth walls surrounding the building for insulation are planted with jasmine and bougainvillaea to create a garden atmosphere. Covered walks, enclosed courts and landscaping reinforce the exterior-interior relationship.

Facets in the Gem



Major functional planning elements of the Timpany Center consist of a reception-lounge-office area, gymnasiums, swimming pools and dressing areas. The reception-lounge-office area, reached through a redwood canopy entrance, is a warm, calm environment created by redwood columns, exposed beams, fireplace and soft earth-tone colors. The area has an especially firm carpet for wheelchair ease. The garden-like feeling is continued inside the building with trees growing in circular planters. The planters are upholstered to form seating areas.

Activity spaces in the Timpany Center include a gymnasium, a tumbling and gymnastic area, a movement exploration area and two pools. Specially designed equipment in the gymnasiums encourages children to explore, solve problems and learn psychomotor skills. The smaller rooms for gymnastics and trampoline have carpeted floors and walls and built-in, adjustable exercise equipment.



handicaps. The basketball nets, for example, can be lowered to a height appropriate for players in wheelchairs.

Walls in the gymnasiums are carpeted. Interior soffits are sound absorbing insulation behind natural redwood boards. Mechanical ducts are housed in the soffits. Sound-absorbent ceiling materials are used, and sound baffles are concealed between the redwood planking.

Lighting is especially important in facilities for the handicapped. For example, the pulsations and hum of fluorescent lights can aggravate autistic children, while brain-damaged children may become hyperactive and aggressive under other lighting conditions. Throughout the Timpany Center, we used a combination of natural, incandescent and fluorescent lighting to allow the users various options.

In both the Water Readiness and the Water Learning Pool areas, maximum use is made of natural and soft materials to help create a noninstitutional feeling. All walls in the pool areas are carpeted. Soffits are redwood boards over acous-

tical absorbing material. The pools are daylighted by large skylights which become light fixtures at night.



The Water Readiness Pool provides low functioning individuals with an intimate water environment and helps them feel secure around water. The pool resembles a beach tidepool, with natural rock walls, waterfalls and water play tables.

Some parents report that, after experiencing the waterfalls, their children go home and use showers they have previously feared and avoided.

An uneven pool bottom varies water depth from 0-12 inches, to gradually ease people into the water. An "island" extending into the pool entices children to venture further into the water. Placing a favorite toy or person on the island can lure timid children into the warm, shallow water voluntarily. Lighting in this pool area can be regulated to change colors and mood.

The Water Learning Pool has graduated depth to allow a natural progression from simple to advanced water experiences. The pool is laid out in a modified X shape with varying depths, widths and lengths. The 8½ foot deep section offers side-of-pool diving. The four foot deep section is the scene of team water games such as water basketball and atlasball. The pool also is designed with two separate 75 foot lengths for lap swimming and racing.



This pool is the site of water learning games, many of which were developed by the staff and teachers who use the Center. Water learning is a multidisciplinary activity which combines swimming skills with educational games and classroom concepts such as matching colors, counting objects and remembering a series of directions.

Barrier-free access to the water is provided by ramps, stairs, ladders and handrails. The oak handrails also serve as buffers to prevent wheelchairs from hitting the redwood walls. The access ramp allows direct wheelchair entrance into the pool and enables people to get into the pool without the indignity of being carried. The edges of the pool are a special stippled tile, which give braille-like directions for the visually handicapped.

The Water Readiness and Water Learning Pools provide important opportunities for handicapped people to overcome their fear of the water. The water can release some handicapped people—at least for a short time—from their handicaps. Many children who cannot walk can swim. Having ready access to the pools in the Timpany Center provides these children with a freedom they might otherwise never know.

The Timpany Center could not have been successful without an enlightened client, the Office of the Santa Clara County Superintendent of Schools, who was dedicated to creating a totally barrier-free facility in a noninstitutional environment—and was willing to take chances and go beyond the stereotype materials, methods and spaces generally found in a facility for the handicapped.

Barrier-Free Attitudes

by Jeanette Harvey



The age of the person who is working, is mobile and who also has a disability is upon us. Electronics has provided automobiles for drivers who are armless, airplanes for pilots who are legless, and talking computers for the voiceless. And architects are facing the challenge of designing an environment that is barrier-free.

Architects and developers often come to me for personal counsel in the barrier-free design of buildings. Some find barrier-free design a challenge, while others resist it vehemently. Some say there are not enough people with disabilities to cover the cost of barrier-free design. Some fear disability. Others rationalize the whole idea by saying, "someone is with these people all the time to help them get around" or "there aren't



any disabled people in our community."

Designing for or identifying with a group that often appears to be anonymous is very difficult. People with disabilities are not frequently seen on the streets in many cities because of environmental obstacles. But the fact is that 10 percent of the people in the United States—myself among them—have permanent disabilities. We are people who want to work, contribute to society, raise families and express ourselves equally in this and in future generations. We must be allowed to move freely about the streets and buildings of our own country in a safe, consistent and predictable way that does not embarrass or degrade our integrity or minimize our social possibilities.

Barrier-free design is in transition from the present form of satisfying regulations to a new stage of development that represents our society more accurately. Currently, barrier-free design or accessibility often is segregated from the overall design process. It is an effort that must be dealt with because the state, county or city codes say it must be dealt with. Would there be motivation for barrier-free design if there were no regulations?

Looking at barrier-free design in a narrow regulation-oriented way does not promote truly new designs. Barrier-free concepts should be subtly integrated into the entire design process, beginning with the front end analysis of design elements in all projects. To me, the goal is to make the entire community available to all people and all possibilities.

Considering barrier-free design as relevant only to handicapped persons is an isolated, exclusive way to think, that often results in buildings with an institutional, orthopedic design and hardware. When dealing with access, architects commonly think of function alone, rather than aesthetics and function.

As a private consultant, I counsel many architects who are trying their level best to follow the regulations for accessible buildings. The basic problems they confront are attitudinal, structural and perceptual. Most problems result from a lack of

As a private consultant, I counsel many architects who are trying their level best to follow the regulations for accessible buildings.

solid information on the purpose, application and need for the integration of barrier-free principles in design.

Attitudes are a serious problem: our designs reflect our attitudes. Not only do architects have to deal with their own attitudes about people with disabilities, they also must deal with the attitudes of a myriad of people working on, approving and paying for the project.

Many architects base their attitudes about people with disabilities upon outdated stereotypes that do not represent the larger population of disabled people. For example, the majority of people with disabilities are not institutionalized.

At the CCAIA's Monterey Design Conference last year, an architect spoke to me in an overprotective and charitable tone about barrier-free design and the people who need it. He referred to people with disabilities as if we usually are in groups—the "birds of a feather flock together" concept. He also referred to people with disabilities as though the focus of our lives is a medical focus. This is not unusual. Most people who have not been exposed to people with disabilities have the same misconceptions.

Who are disabled people? Are they competitive, married, athletic, employed, aggressive? Most people with disabilities

are independent taxpayers. Most represent a cross section of the general population: some are strong, some weak, some are happy, some are not. A woman I was counseling told me the following story:

"I have been disabled all my life. I have used a wheelchair to get around since I was 14. I managed to move away from home and live on my own, attend college for seven years, marry and stay married, have two children, travel throughout Europe.

"I landed a \$28,000 a year job and purchased a van equipped to let me move around spontaneously. I get to the top and discover that I am as capable and independent as the next person. And you know what? I can't use the parking in our building at work, or the bathroom that is within a reasonable distance from my work place. Nor can I eat in the cafeteria independently. I know this is not *my* limitation any longer."

Popular Misconceptions

For decades our society has emphasized that avoiding people with disabilities is "polite" behavior. The emphasis our society places on physical perfection makes us feel vulnerable around people who have disabilities. We are inundated with television and news messages telling us that people with disabilities are obsessed with their disabilities and that they require sympathy. "Sympathy," "contributions," "traumatic life experience" are all buzz words triggered when the media addresses the subject of disability. How can anyone be challenged and enthusiastic about designing with this population in mind if that image is their frame of reference?

Architects and developers take on a dreadfully serious tone when discussing the issues of barrier-free design. Humor is definitely lacking. The fact that we have a disability seems to consume the attitudes of people coming in contact with us. Having to take our disability so seriously makes it terribly hard for us and does not stimulate communication.

Attitudes toward the disabled are reflected in the brochures on access received in architects' offices. Are lively, dynamic people illustrated in those brochures? Or are the illustrations orthopedic, emphasizing pictures of wheelchairs without real people in them? The brochures and pamphlets with pictures of wheelchairs and hospital-style drawings say very loudly that the machinery, the braces, the wheelchairs are more important than the people who use them.

The second most frequent call I get from architects is on structural problems. The interior and exterior structures, from landscape to interior design, must integrate the concepts of barrier-free design. While most attitudinal problems are very difficult to solve, structural problems are concrete enough to work out solutions.

I recently attended a preview of a major development project in San Francisco. The focus of the presentation was on the community's use of the development. I asked about the developer's concepts on barrier-free design, assuming that since an archeologist had been hired on the project, there certainly must have been a barrier-free designer. Never having considered myself a radical or even a wave-maker, I was startled at the reception to my rather moderate question. The developers huddled together before defensively saying, "This project is for everyone in the community." But barrier-free design had not been considered.

The professional conversation I was hoping to share was dropped, and everyone scattered 10 feet away from me. Yet reaching out for collaborative efforts is essential in finding solutions to design problems. The defensive posture keeps this entire area of design on an unnecessarily emotional and non-productive level.

Barrier-free design consultants are becoming an integral part of most major projects, and consultant firms are cropping

up all across the country. Let's face it: barrier-free design is a new area. Universities rarely address these issues in required curricula for architects. Supplemental education is needed.

A barrier-free consultant can help an architect find functional, aesthetic, cost-effective solutions to design problems. It is important to locate a professional in barrier-free design who has knowledge as well as experience in having a disability. The dynamics of a space are complicated. A person who can check the usability of a design can take some of the weight off an architect's shoulders.

A third area in which architects consult me deals with perceptual problems. Once the attitude is clear and we sit down to design the structure, getting our minds to look at the problems of barrier-free design in a fresh light is often an obstacle.

For example, an architect charged with changing the front of a department store into an accessible entrance came to see me. There was a very large curb and a large step to the entrance of the building. Since the sidewalk was so close to the street, the architect could not ramp from the outer part of the door. He began to get a blind spot in his problem-solving.

After discussion and watching me use space with my wheelchair, he decided to have the ramp come from inside the department store and end at the door, making the store both accessible and attractive. Perceptual problems can be easily solved when the experience of a person with a disability and the expertise of an architect are combined.

Here are a few guidelines to help overcome attitudinal, structural and perceptual problems often associated with barrier-free design:

- To reduce emotional misconceptions and remove the cobwebs from your mind, keep a clear idea of who people with disabilities are. They are just people, like you and me.
- Request written and pictorial work on buildings that incorporate barrier-free design.

*Reaching out for collaborative
efforts is essential in finding
solutions to design problems.*

- Consult with a person who is disabled and mobile about access to expand your personal experience with disabilities.
- Include on your interdisciplinary team a barrier-free design professional who will help you integrate the concepts of barrier-free design at the front end of the building development analysis.
- Pay attention to detail to bring the barrier-free elements to fruition.
- If barrier-free design has a priority with you, assert your position as an architect and stand up for your principles when people argue about the cost and over-regulation.

Barrier-free design is undergoing a transition in our nation today. Finding barrier-free solutions to design problems in new and retrofit buildings certainly is not easy. Some problems may never have barrier-free solutions. But a conscientious effort to include barrier-free elements into the process of architectural design will go a long way toward including people with disabilities into the mainstream of American life.

Jeanette E. Harvey is president of Barrier-Free Communications, Inc., a barrier-free consultant firm in Sausalito, California. She has served on the Architectural and Transportation Barriers Compliance Board review team for five Bay Area counties.



Lafayette Centre, Washington, D.C. Welton Becket Associates, Architect

The Farr-Jewett & Associates, Inc. development company has an unusual commitment to including barrier-free design elements in the buildings they develop. The Lafayette Centre in Washington, D.C., designed by Welton Becket Associates and developed by Farr-Jewett, is a model of integrated barrier-free design. Life and safety systems go beyond the norm to make the 1,000,000 square foot office/retail complex accessi-

ble to people with disabilities. Lafayette Centre contains aesthetic barrier-free solutions which give the handicapped and the elderly freedom of movement with dignity.

Barrier-free consultant Jeanette Harvey traveled to Washington to interview Charles A. Jewett and discover why one of America's leading development companies is so committed to barrier-free design.

How do you, as a developer, approach barrier-free design?

We have found the subject of accessibility to provide more of an opportunity for innovation than first expected. While there are many code requirements which are intended to assure rudimentary, barrier-free design, most mandated solutions tend to be antisepic, purely functional and often unfriendly. The challenge lies in offering barrier-free design in a more subtle way, so that the person who has a need of it feels welcomed, rather than segregated.

What would help architects integrate barrier-free design into the entire design process?

For starters, I suspect that not enough input is being obtained from people who are themselves handicapped. Relying solely on code requirements and best guesses may not be enough.

For example, I've seen emergency telephones located close enough to the floor so that they can be reached from a wheelchair, only to have a locking mechanism that cannot be manipulated by someone who is without normal dexterity.

As another illustration, it is relatively easy to find a handicapped toilet equipped with the usual handrails, only to find that a foot pedal is to be used for flushing, or that the door to the stall requires a cylinder to be turned to lock. Many a person could not manipulate either device. A person who deals with such matters in the real world would spot the design mistake in a second.

A major objection raised against barrier-free design is prohibitive costs. What do you think about that?

That line of reasoning may very well mask a basic unwillingness to be overly bothered by the subject. There are many design alternatives which are available without cost consequence that improve a building's basic function for the handicapped. For example, choice of carpeting and padding for publicly trafficked areas represents a potential barrier for an individual who must use a wheelchair. It can have roughly the same effect as riding a bicycle through tall grass.

Why should architects and developers go beyond the regulations and develop a true community design?

Lack of greater attention to this issue may be a gross, ecological miscalculation. Anyone who produced a building that was inefficient from an energy point of view would be considered irresponsible. What is to be said of the building that is insensitive to the needs of the handicapped? To the extent that what we do is a reflection of what we are, it's easily possible to explode lack of concern about the issue into a fairly negative social commentary.

What can an architect do to introduce the developer to barrier-free design?

Ideally, architectural firms might begin looking at barrier-free design as a distinct sub-specialty to their own profession. There are traffic, lighting, parking, elevator and acoustical consultants. What is wrong with introducing a barrier-free design specialist as a normal feature of the architectural design process? With patience and with time it might be possible to see the issue become more normalized—simply part of a routine design undertaking.

How should barrier-free design consultants be used?

They definitely should be intimately involved in the specifics of a project. A friend of mine, who must get around in a wheelchair, was asked to attend a meeting at our offices in Washington, D.C. Without knowing what the answer would be, we asked her upon arrival if she could get through the front door of the building. The answer was "no." The hardware on the door would not allow her to negotiate the door. Once that problem was overcome, she found the door required too much pressure to be pulled open. Once that problem was overcome, her wheelchair rolled back from the opening because it had been pitched for drainage. We were shocked. Three barriers, which would have been entirely overlooked by someone with normal motor abilities, were unintentional sources of frustration for her.

Are there enough people with disabilities to make it worth the money to integrate barrier-free design concepts?

There is a classic chicken-or-the-egg answer to this question. Do buildings not need to be accessible because the need is not there? Or would buildings be more utilized by the handicapped if they were more accessible?

Another issue involves the definition of the word "public." If handicapped persons are to be thought of as part of the public, how can a building not take their needs into consideration? In other words, the monetary issue might be one of the cheaper issues.

Lastly, there is the blatant, practical question of the relative size of the population which needs to be accommodated. If handicapped includes individuals with both temporary and long-term disabilities, the group becomes larger rather quickly. Older people who are infirm, friends with arthritis, a teenager with a broken leg, or an employee recovering from an operation—all join the ranks of the handicapped who would benefit from barrier-free design.

Does a building need to look institutional to include barrier-free design?

No. In fact, it is vitally important that barrier-free design not be obvious. Behind the whole idea of accessibility is the notion that a person have the ability to navigate his way through a building unassisted. There is great dignity in that. Design also should cooperate by blending specific solutions so well that it is not apparent that they exist to help the handicapped. It is a way of not singling out the beneficiaries of that design. Try opening a door with just the palms of your hands. A doorknob can create heartache for one with no grip. A lever functions far better and might be considered a more attractive treatment as well.

In reviewing Lafayette Centre, the accessibility concepts are so well integrated it is difficult to point out specific elements of barrier-free design.

That happens when the architects are so in tune with the subject that they think like a handicapped person. Most of the solutions do not need to stand out in any obvious way. It is in the integration of these solutions into the total design process that the real challenge can be found. Resolution of the problems offers an opportunity for genuine creativity and is definitely in the public interest.

CCAIA '82

The Architect and the Office



The recipient of the sole Award of Excellence in the 1981 San Joaquin Chapter, American Institute of Architects Honor Awards Program, the TSPS facility for Pacific Telephone and Telegraph Company in Fresno was the first in a series of similar facilities in the San Joaquin Valley. The building, of wood and stucco construction, functions as the center for operator services in the central California area and houses 100 computer terminal stations and attendant service areas.

1982 brings another year of opportunities, issues and challenges to the California Council, the American Institute of Architects. I have high expectations for this year and am convinced that we will become stronger, more effective representatives of the profession—stronger than ever before.

CCAIA is leaner and more efficient than in the past. Our budget, although requesting 23 percent less money from each member than last year, is adequate to provide a unified, highly-focused set of programs that will enable us to represent the profession at the state level in a very proactive way.

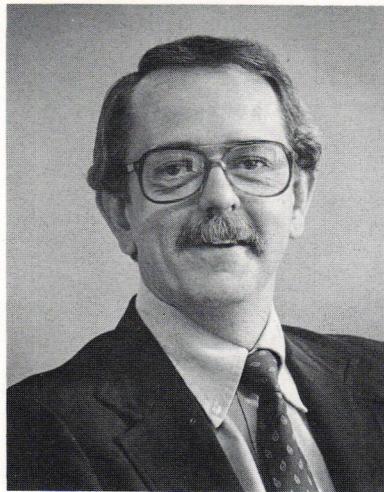
Among many other tasks, I hope to see us accomplish the following:

- See the enactment of SB 165 (Ellis) which will alter the public member majority status of the Board of Architectural Examiners.
- Consolidate and strengthen our position in Sacramento to give architects an influential role in state government.
- Continue to monitor and influence the National Council of Architectural Registration Boards to protect the interests of California architects.
- Establish formal policy guidelines which will guide future decisions of Council boards and staff.
- Continue our efforts to prevent the expansion of the building designer category.

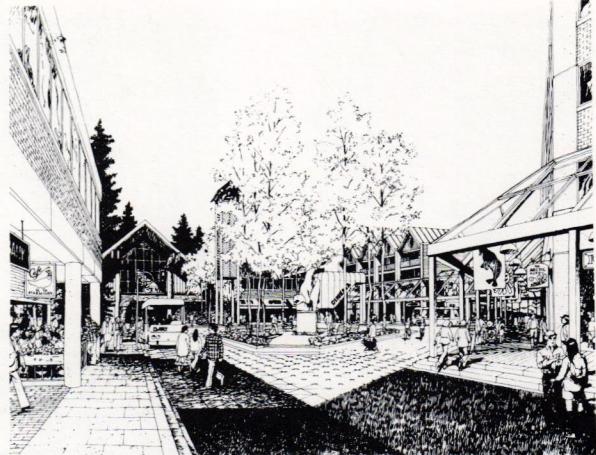
We will not be changing the Council—it is headed in the right direction. This year will be one of addressing incomplete issues, defining and acting upon past and present problems and, most of all, responding to the needs of our profession.

I ask you to join with the Board, the officers and the staff in making this a year that will have a significant and positive impact upon our professional lives.

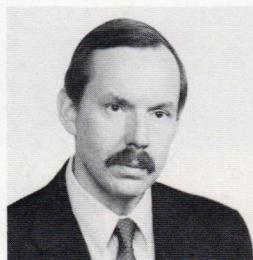
A handwritten signature in black ink, appearing to read "Patnaude".



William E. Patnaude, AIA
Allen Y. Lew & William E. Patnaude, Inc.
President

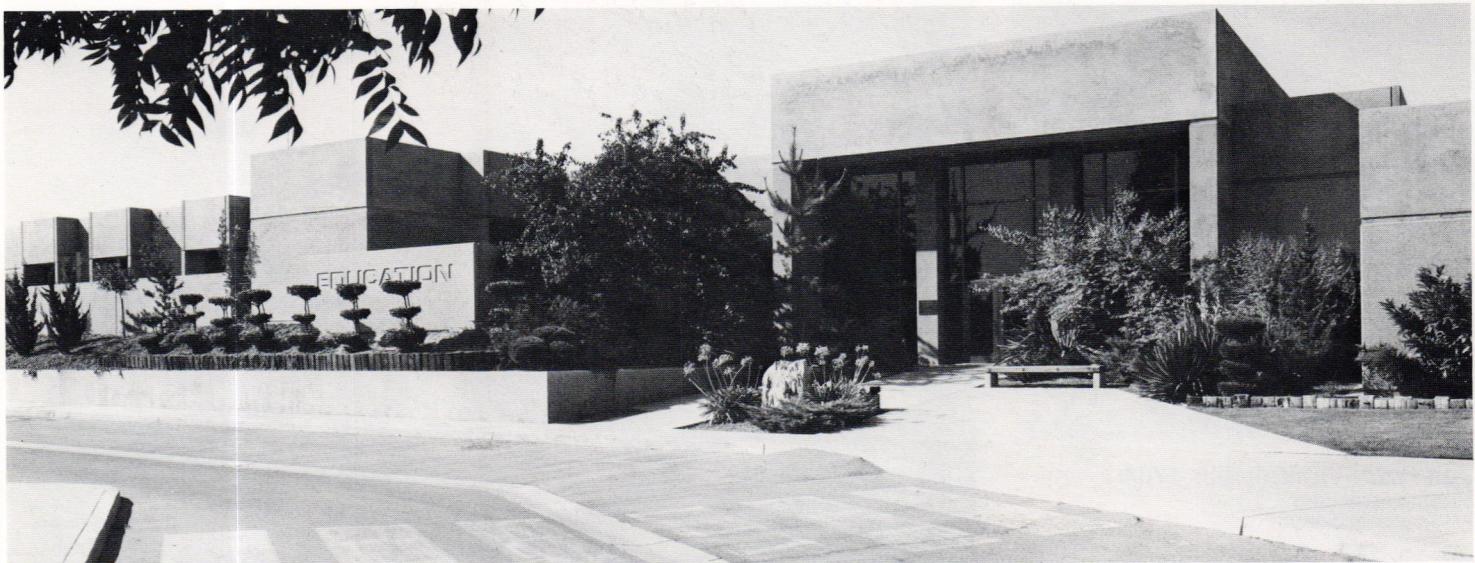


Bull Field Volkmann Stockwell won the Alaska State Capital Master Plan Competition to build a new capital city on a site north of Anchorage.



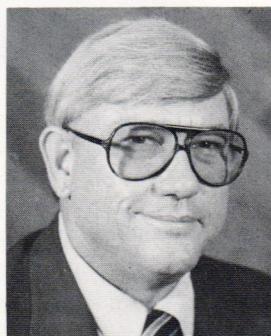
My goal as Vice President of Governmental Relations is to develop an effective political advocacy program, working on behalf of the profession in California. The key to the success of this program will be our ability to organize our political contact network at the Chapter level.

Robert E. Allen, AIA
Bull Field Volkmann Stockwell
Vice President/Governmental Relations



The Tulare County Department of Education Administration Office is a 50,000 square foot, two story building with handicap ramps transversing the perimeter. The construction is tiltup concrete with wood frame. In our office, design teams are developed for the duration of all projects. This project had Ray Schlick, AIA as principal in charge and Richard Mangini, AIA as project designer. I was project manager.

A cornerstone of each of our practices and our livelihood is professional development—keeping up with new information, product development, business practices and design. The Council can best fulfill the needs of its members by listening and acting on your desires for information. I am here to help in that endeavor in 1982.



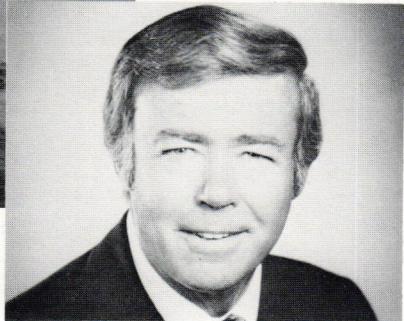
Lawrence P. Segrue, AIA
Octagon Associates
Vice President/
Professional Development



Julius Shulman

The "Sixty-01" apartment development near Seattle is one of our favorite projects, even though the final phase was completed ten years ago. The comment by the 1978 AIA Honor Awards Jury: "Seven hundred and seventy apartment units, unified by wood shingle roofs, have been beautifully integrated into a site initially considered unsuitable for building. The buildings, the site and the landscape have been skillfully conceived, creating a sensitive balance between structure and nature."

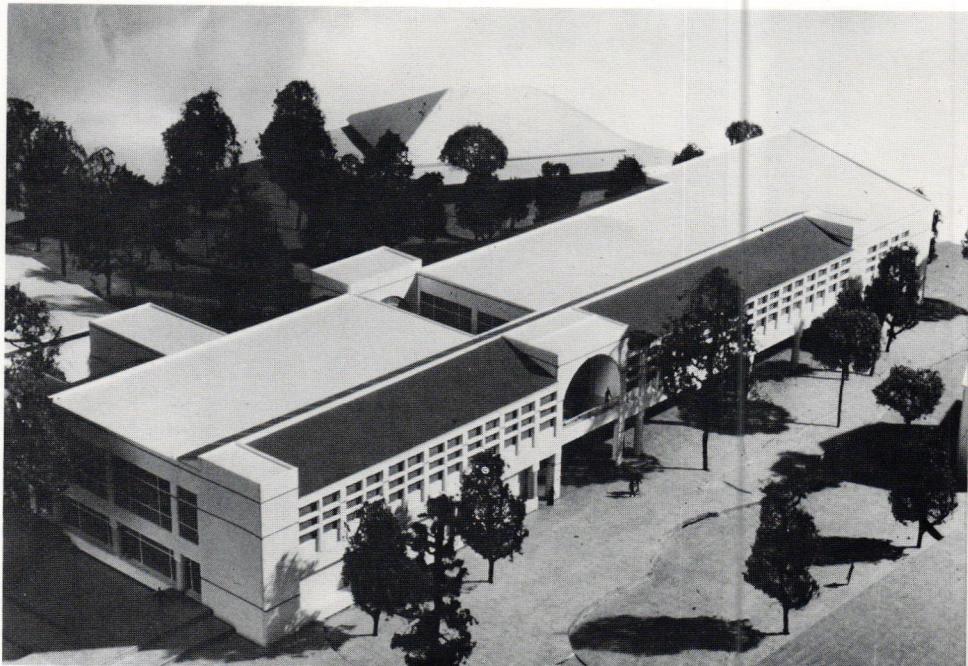
One of my prime responsibilities on the National board is the Government Affairs Commission. This commission reviews all national policies and makes recommendations to the Board for adoption or deletion. I am in a strong position to effect California's concerns into national policy.



George Bissell, FAIA
Bissell Associates
AIA Regional Director

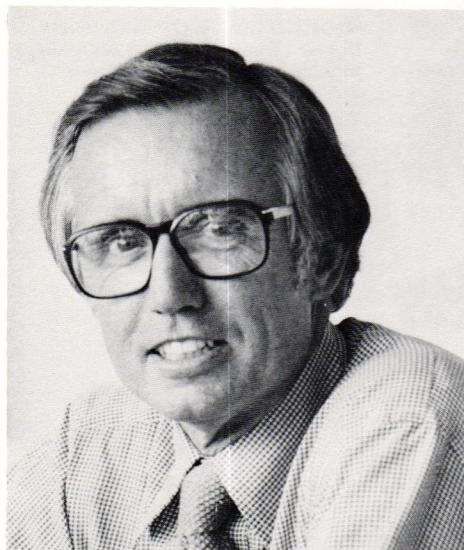


Jon Peter Winkelstein, FAIA
Marquis Associates
AIA Regional Director

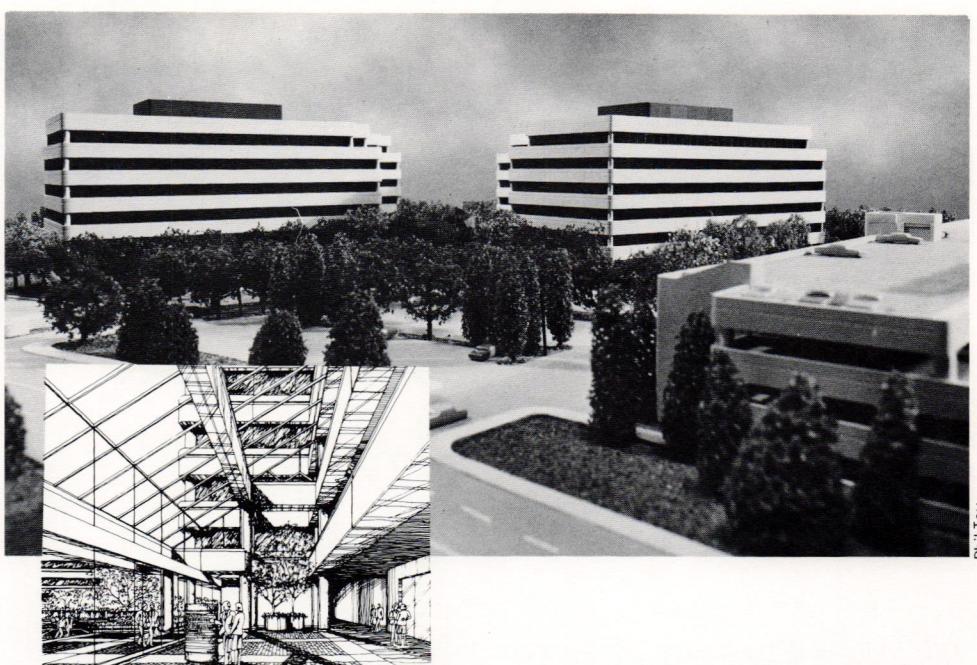


The Braun Music Center at Stanford University will house classrooms, offices, a large rehearsal hall and the music library. Spanning a major pedestrian way, it will serve as a gateway to the academic part of the campus. The design contains elements of the best of Stanford's older buildings.

My goal for 1982 is to facilitate communication between CCAIA and National, and to be CCAIA's advocate in Washington. When united, we speak with a strong voice.



Harry C. Hallenbeck, AIA
Hallenbeck, Chamorro & Associates
AIA Regional Director

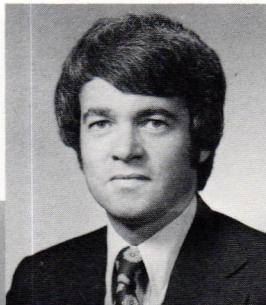


Phil Toy

Concord Airport Plaza is a 380,000 square foot, \$45 million urban office complex to be built in the hub of the rapidly growing subregion of Contra Costa County. The project is designed to attract those "San Francisco type corporations" who are being squeezed out by the high cost of rent and the lack of space and parking. The complex will include "downtown" qualities of large flexible floor spaces, life safety and energy management systems, while providing

extensive landscaping, control plazas and sculptured fountains.

I will be serving on the Membership/Component Affairs Commission which oversees and coordinates the activities of Chapter and State components. I want to establish close communication with the members, facilitate an effective sharing of component interests and activities, and coordinate the legislative and professional development programs of all three levels of The Institute. My goal is to unite The Institute into effective representation of the profession.

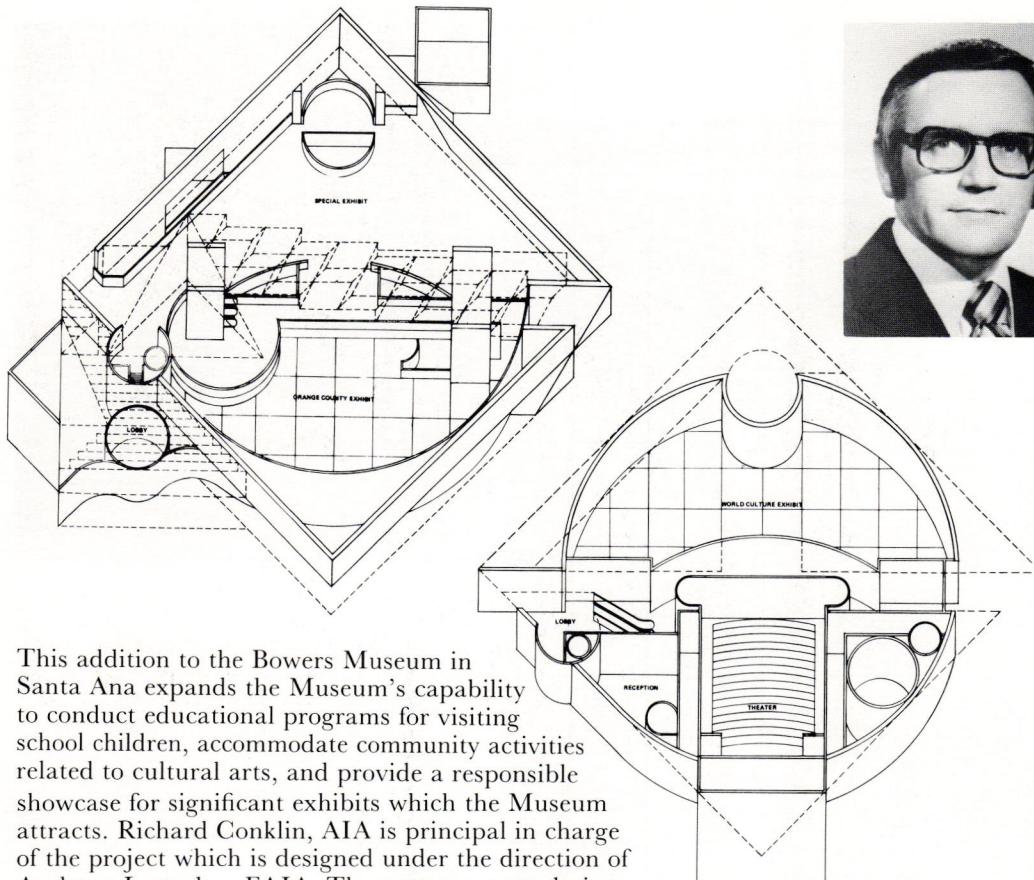


**Edward D.
McCravy, AIA**
Skidmore, Owings &
Merrill
Treasurer



The 5400 Westheimer Building, a 670,000 square foot office building in Houston for Bechtel Corporation, contains office floors of over 70,000 square feet. Design and construction of the project took only two years; construction began in April 1980, and occupancy started in October, 1981. I acted as project manager for SOM, and provided the overall project scheduling.

As Treasurer, my job is to monitor the effective use of dues funds. With the staff and leadership we now have in Sacramento, we have been able to reduce the need for outside consultants and their associated expense. The membership's demand for an effective representation in Sacramento at a minimum dues commitment presents a challenge to the Council over the coming years.



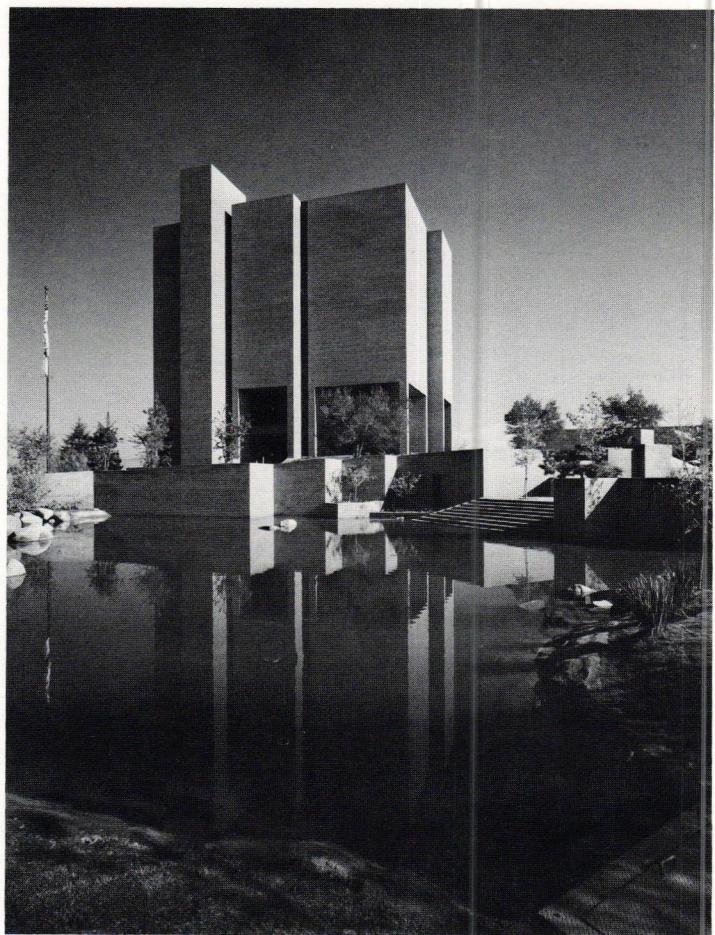
Richard G. Conklin, AIA
Daniel, Mann, Johnson, & Mendenhall
Vice President/Public Awareness

CCAIA Public Awareness goals for 1982 include initiating a statewide design awards program and expanding media contacts to inform the public of urgent architect-related issues.

This addition to the Bowers Museum in Santa Ana expands the Museum's capability to conduct educational programs for visiting school children, accommodate community activities related to cultural arts, and provide a responsible showcase for significant exhibits which the Museum attracts. Richard Conklin, AIA is principal in charge of the project which is designed under the direction of Anthony Lumsden, FAIA. The contemporary design is in studied contrast to the existing Spanish influence in the Museum.



William E. Blurock, FAIA
The Blurock Partnership
AIA Regional Director



The El Cajon Civic Center and City Hall are built on an old, abandoned lumberyard site in downtown El Cajon. In an otherwise low-rise city center with no focal point, the building and surrounding "people places" create a true civic center, and give El Cajon a master plan for expansion in the future. As team leader, it was a pleasure to work with city and county officials and our associate local architect Art Decker, AIA in the team approach to design which is the philosophy of our office.

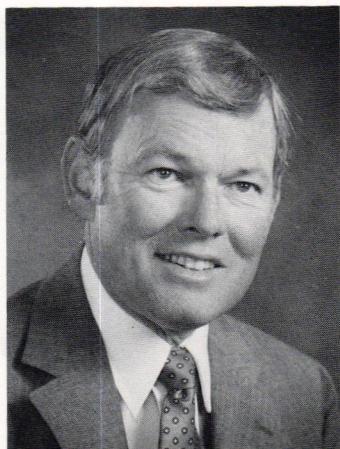
As a third year director, I finally understand and am able to logically agree and disagree with National in regard to policies, dues and services. I want to spend part of my year bringing the California "Resolution A-1" to a reasonable and identifiable status, and to identify and phase out services and/or policies that could be done at the Regional or Chapter levels. In my opinion, this is the cause of excess expense and manpower waste and ties directly to "A-1" goals and principles. I also will be Chairman of the Design Commission which oversees ten committees, task forces and juries.

This house is under construction in the hills of Oakland. Though of simple plan, the project is complicated by the need to meet the on-site parking requirement within the physical constraints of the property. I designed it, I built it, and I will sell it. (Wanna buy it?)

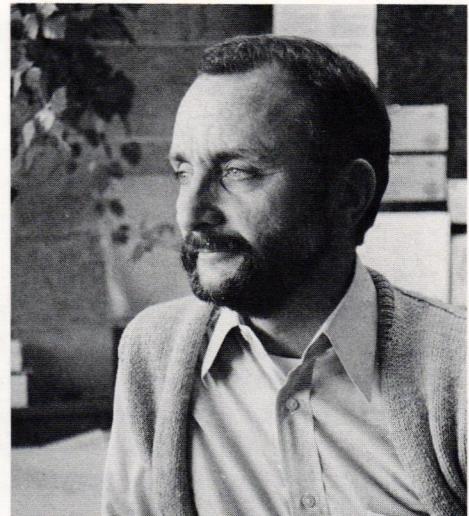


The mainstay of our practice is farming/ranching projects, working with agricultural specialists to design ranch buildings, houses and site planning—a good way to get great sites.

In the years ahead, CCAIA must build upon past successes while increasing our effectiveness with new resources and aggressive, alert activity by members and staff.

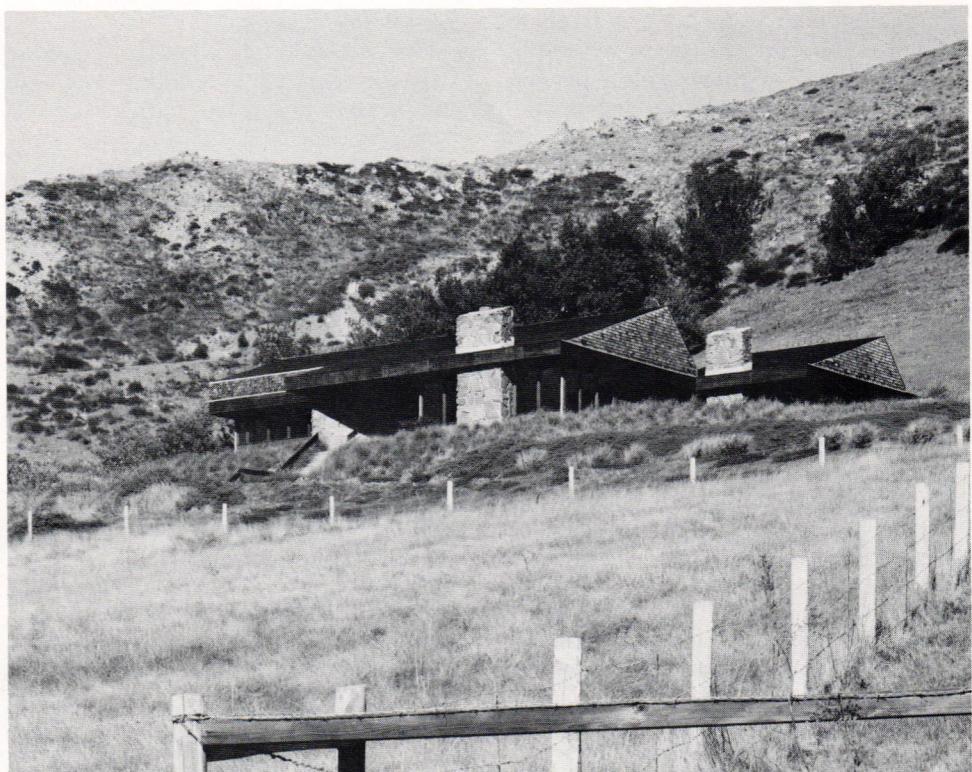


Professor Paul R. Neel, AIA
California Polytechnic State University,
San Luis Obispo
Vice President/
President Designate



Harry Jacobs, AIA
Harry Jacobs, AIA Architect
Secretary

During 1981, the Board overhauled the Council Documents. As Secretary for 1982, I view my task as assisting in the monitoring and implementation of those changes.



Mary Katharine Randrup of Walter Wagner-Martin Temple, Inc. is CCAIA Associate Director (North).

FROM THE FLOOR

Barrier-Free Design: It's the Law

Access regulations proposed by the Office of the State Architect were adopted by the California State Building Standards Commission on September 25, 1981. The Regulations for the Accommodation of Physically Handicapped Persons in Buildings and Facilities Used by the Public were scheduled to become law on January 1, 1982. We architects would have been responsible for compliance with regulations we had not yet seen.

Thanks to the efforts of CCAIA and others, the Office of the State Architect asked the Building Standards Commission to extend the effective date of these regulations to July 1, 1982, to allow architects and building officials time to become familiar with the new regulations.

We finally have a definitive set of regulations in California which establishes the minimum needs for barrier-free design. The regulations do not make every building accessible to every person with a disability. As with any measurement in design, there has to be some limit: every doorway cannot be designed for the tallest person who ever lived, nor every table designed for the shortest person, nor every seat for the broadest person. But the regulations do go beyond any access standards ever developed.

The same regulations which help us design for people with disabilities also create a major new exposure to errors and omissions liability. Architects who fail to learn the new laws could pay dearly.

What must be accessible?

The regulations require access for nearly every type of construction except privately-funded housing. Access also is required for existing facilities when remodeling projects cost over \$50,000. The regulations cover everything from pedestrian bridges and highway rest stops to the maximum amount of pressure required to open doors. They cover curbs, parking spaces and sidewalks, building entrances, paths of travel, and sanitary facilities.

Does every space in every building have to be accessible? Ethically, it seems important to make every space as barrier-free as possible, but the regulations do not require that every space be totally accessible. The regulations definitely state that there are exemptions, such as upper levels of buildings which are not accessible by a ramp or elevator. In some areas, only a percentage of the facilities must be accessible.

The percentage of a facility that must be accessible varies by occupancy type and is usually determined on a sliding scale which requires smaller percentages as the total number of occupants increases. For example:

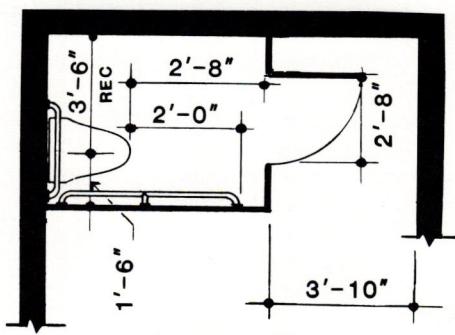
- The number of accessible parking spaces required in parking lots with more than five spaces varies from just over one percent for lots with more than 500 spaces, up to a maximum of about five percent for lots with 41 spaces.
- Theaters and auditoriums are required to have one to two percent of their seating accessible to wheelchairs and another one percent accessible to semi-ambulant persons.

- Dining facilities are required to have one wheelchair seat for each 20 seats, and at least one seat in each functional area such as the bar or meeting rooms.
- Hotels and motels must have four percent of the first 100 guest rooms, and one percent of the rest, fully accessible.

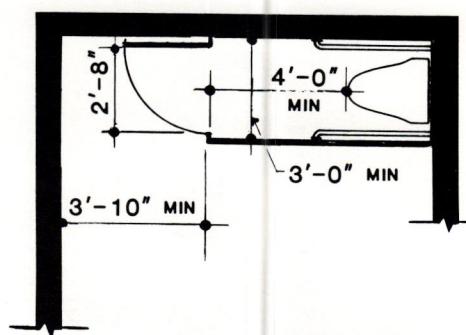
A major exemption to the regulations relates to multi-story buildings. According to the regulations, privately-funded multi-story buildings must be accessible at the first floor or ground level. But when an elevator or ramp is not available to other floors or levels, those floors or levels are not required to be accessible if a reasonable portion of all facilities normally sought and used by the public are accessible. For example, a two story restaurant would not have to have the second floor accessible as long as any facility on the second floor—such as a bar or restroom—was duplicated on the first floor.

The regulations go even further for multi-story passenger vehicle service stations, shopping centers, offices of physicians and surgeons, and office buildings. Floors and levels above or below the first floor or ground level are exempt from access requirements in these facilities if an elevator or ramp is not available. No provision is included for a reasonable portion of the facilities to be accessible.

These exceptions are not intended as a means to avoid barrier-free design. The regulations recognize that it would be unfair to force every building to have an



Lateral transfer



Front transfer

Approved existing toilet compartments

by John Arthur Raeber, AIA

elevator to every floor. They also recognize the importance of allowing some design variation in spaces with the use of level changes.

Do the regulations apply to existing buildings and facilities?

One of the most important items in the regulations relates to existing buildings: where remodeling projects cost more than \$50,000, the path of travel to the area being remodeled, as well as the area itself, must be made accessible. Related sanitary facilities, drinking fountains and public telephones also are included in this requirement.

However, an exception clause allows the enforcing agency (the Office of the State Architect for projects funded by the

state; the local building department for local projects) to grant an unreasonable hardship exemption from compliance with the regulations. In these special cases, the regulations do not have to be followed to the letter, but "equivalent facilitation" is required.

Equivalent facilitation means that an alternate means of complying with the literal requirements of the standards must be provided. Consideration has to be given to providing "maximum independence of the physically handicapped individual while presenting the least risk of harm, injury, or other hazard to such handicapped persons or others," according to the regulations.

The only way to be exempt from providing equivalent facilitation is through an appeal to either the regular local appeals process or through a special local appeals board established for access appeals. Exemptions are granted through the appeals process only if legal or physical constraints make compliance impossible. Although no definition is given for legal or physical constraints, we are guessing that a property line or code-required element such as exit stairways would be a legal constraint, and a structural element or elevator shaft would be a physical constraint.

This could mean delays in projects where appeal is necessary. A conflict in contracts between building owners and tenants regarding responsibility for the costs of path of travel revisions also is possible. If the tenant submits plans for alterations on the 15th floor, the local building department will have to reject the plans unless proof is provided that the site, the building entrance, the path of travel from the entrance to the new space, and the necessary sanitary facilities and drinking fountains are accessible. If they are not accessible, the plans will have to be revised prior to approval. If the building owner refuses to make the necessary changes, the tenant will not be able to get a building permit.

A lot of questions about access requirements remain to be answered. What happens if one tenant's remodeling requires building revisions in space rented to another tenant? Does that constitute a legal constraint which exempts the building owner from compliance with the ac-

cess regulations? Who pays the rent for new lease space during construction delays due to the appeals process? And if changes are required to the base building, who pays the architect's fees for designing access for areas outside the contract area?

Are the regulations reasonable?

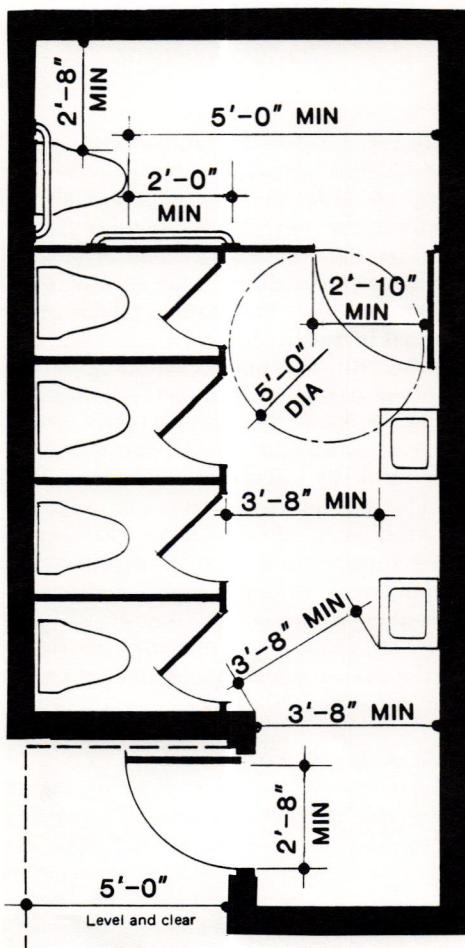
For the most part, the regulations are reasonable. Every project is going to have its little problems with a door or a ramp or an elevator. But these problems can be solved like any other design problem.

Complying with the regulations will increase construction costs, however. In new construction, the regulations will add an estimated one percent to construction costs. This expense covers site access, wider doors, the more costly lever-type hardware, larger restrooms, and a variety of minor design changes.

The costs of bringing existing construction into compliance with the regulations can be extreme. In some cases, a ramp to a building entrance could cost as much as the remodeling work. Cost can be a consideration in allowing an exception to the regulations, but only to the extent that another method of access is provided. Thus a ramp may not be required if barrier-free access is available at a secondary entrance.

One requirement in the access regulations that could be considered unreasonable is the requirement for existing buildings to have an accessible path of travel to areas being remodeled. The logic for this is sound: Why make a space accessible if it's impossible to get to the space? But most buildings built in the last ten years were required to be accessible under the existing laws. The degree of accessibility may not meet the present requirements, but the buildings still are accessible.

The regulations attempt to undo in a few years all the barriers which have resulted over the past hundred years. With the economy on the verge of another depression, there has to be some concern over the cost of complying with these regulations. Many of the buildings affected by the regulations are owned by state or local governments. The cost of making publicly owned facilities meet the new regulations will have to come out of funds earmarked for other purposes.



Multiple accommodation toilets

FROM THE FLOOR

In the private sector, the additional costs could make many building owners reconsider remodeling, which could harm both the construction and building materials industries. In some cases, private building owners may avoid the whole process and do remodeling work without a permit, creating a potential life safety danger.

For architects, the regulations may mean fewer remodeling jobs due to the increased costs. Where there are remodeling projects, corners may have to be cut to make up for the cost of access features. Architects will have to spend more time on all their projects to make sure they meet the access regulations.

What about an architect's liability exposure?

Architects who fail to learn the new laws on access will substantially increase

their exposure to errors and omissions claims. Section 55 of Part 2.5 of the *Civil Code* states, "Any person who is aggrieved or potentially aggrieved by a violation . . . may bring an action to enjoin the violation. The prevailing party in the action shall be entitled to recover reasonable attorney's fees."

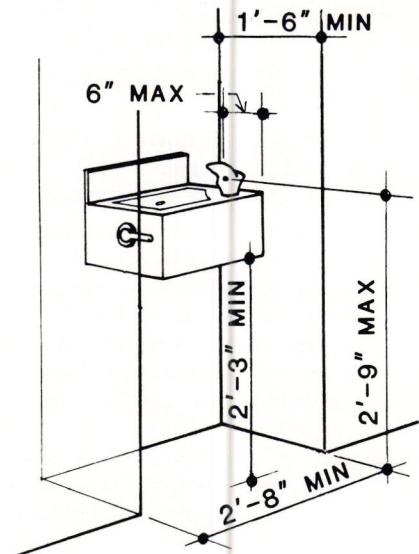
Any person with a disability can file a complaint after trying to enter a building, or a space within a building or facility, and finding some part of it inaccessible. The enabling legislation for the access regulations also allows a district attorney, city attorney or the state Attorney General to bring an action against violators of the regulations (*Government Code*, Division 5, Chapter 7, Section 4458, and *Health and Safety Code*, Division 13, Part 5.5., Section 19958.5). If the complaint is valid, the building owner will have to make the necessary alterations, and probably will try to recover the cost from the architect's errors and omissions insurance.

The State Department of Rehabilitation already has a group of people whose purpose is to assist people with disabilities in trying to enforce the existing regulations. These new regulations may increase the likelihood of people filing complaints. Under the new regulations, compliance can be forced upon those who fail to recognize or understand the needs of the disabled community.

How will the regulations be distributed?

Herein lies a problem! The State Printing Plant was scheduled to print the regulations on December 30, 1981. You will automatically receive a copy from the Documents and Publications Section of the Department of General Services only if you purchase a new Title 24 of the *California Administrative Code* after January 1, 1982, or if you already subscribe to the supplement service for Title 24. Copies of the *State Building Code* also can be ordered from Documents and Publications, 4675 Watt Avenue, North Highlands, CA 95660.

If you order Title 24, you will receive a three-inch thick document which contains all the state building standards. You will have to search out the relevant sections by using the table of contents and the new index.



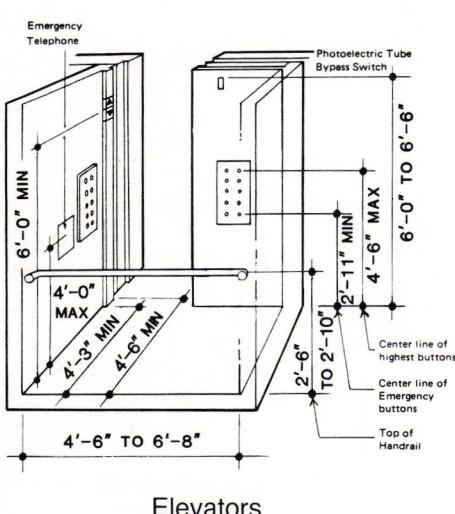
Drinking fountains

If you receive the supplement, you'll get 300-400 pages to be shuffled into your copy of Title 24. The supplement will contain the new access regulations, as well as the new energy regulations for residential buildings, and several other new building standards which were passed in 1981.

Our work in implementing regulations is about to begin. Architects who take the time to learn the requirements should have no problems. Those who fail to understand the importance of access stand to lose a great deal of time and money.

Architects always have proclaimed their support for access. We now have the opportunity to prove our commitment. Whether we agree or disagree with the laws, we should recognize the importance of the overall concept and strive to make our society barrier-free.

John Arthur Raeber, AIA, CSI, CCS is the Manager of Technical Services for Gensler and Associates/Architects. He served as a consultant to the State Building Standards Commission, reviewing proposed regulations on access for the disabled submitted by both the State Architect and the Commission of Housing and Community Development. Mr. Raeber just finished a manual on the new access regulations which is being published by Building News, Inc., 3055 Overland Avenue, Los Angeles, CA 90034.



Elevators

What's New in Access Regs?

Most of the requirements in the Regulations for the Accommodation of Physically Handicapped Persons in Buildings and Facilities Used by the Public are well established and already in use. Architects who still have the 1980 or 1981 edition of the proposed regulations distributed by the Office of the State Architect can use them as a guide until the official regulations are available.

The list below summarizes some of the major changes outlined in the new regulations. Unless otherwise indicated, the measurements are the minimum allowable. Exceptions are not listed.

Parking Spaces: 9'0" wide, 18'0" long, 5'0" loading area adjacent to one side.

Walks and Sidewalks: 4'0" wide.

Ramps: 1 vertical to 12 horizontal maximum allowable slope. Handrails required for slopes exceeding 1:15.

Overhanging Obstructions: 6'8" above the walking surface.

Stairways: The upper approach and all treads on exterior stairs require a 2" wide strip of clearly-contrasting color parallel to the treads. Interior stairs require the strip at the upper approach and bottom tread only.

Doors:

2'8" clear width (requires a 3'0" door, unless special hardware is used). Narrow stile doors are required to have a 10" wide bottom rail.

Hardware:

Lever, push-pull or panic type.

Closers:

Maximum allowable pressure to operate is 5 pounds for interior doors, 8.5 pounds for exterior doors, and 15 pounds for fire doors.

Aisles:

3'0" wide (includes space between furniture).

Projecting Objects:

Maximum allowable projection is 4", if the leading edge of the object is more than 2'3" from the floor. Otherwise, there is no restriction.

Controls and Switches:

Centered between 3'0" and 4'0" above the floor.

Wall Outlets:

1'0" above the floor.

Drinking Fountains and Telephones:

2'3" clearance required beneath. Fountains are required to be recessed, to be out of the path of travel, or to have wing walls.

Alarms:

Where emergency alarms are provided, both audible alarms and visual alarms are required. If provided, illuminated exit signs shall flash as a visual alarm.

Sanitary Facility Signage:

A 12" equilateral triangle is required for men's facilities and a 12" diameter circle is required for women's facilities.

Accessible Compartment:

4'0" clear required in front of the water closet for front entry compartments; 5'0" required for side entry compartments. 2'8" clear required to one side of the water closet. Grab bars required at the back and on one side.

Lavatories:

2'5" clearance required beneath lavatories. Lever or push-type controls required.

Shower Compartments:

3'6" wide, 4'0" deep, 3'0" entry. Folding seats and grab bars are required.

Entrance:

All primary entrances must be accessible.

C L A S S I F I E D

Architecture California now accepts Classified Advertisements for positions available, positions wanted, services, business opportunities and miscellaneous.

Rates: 80¢ per word, \$40 minimum. Payment must accompany the classified ad copy.

Address all ad orders to Classified Ad Department, Architecture Califor-

nia, 1414 K Street, Ste. 320, Sacramento, CA 95814. Phone: (916) 448-9082.

Travel

Study Tour of Japan. 33rd Architecture and Gardens Tour leaves Los Angeles October 9, 1982. In-depth, 22 days, for professionals and laymen. Limited to 23 persons. Brochure from Escort-Lecturer: Kenneth M. Nishimoto, AIA, 30 North Raymond Ave., Pasadena, CA 91103.



"All I ever did was practice architecture in Los Angeles."

West Coast Design from Baja to B.C.

March
26-28,
1982

ARCHITECTURE CALIFORNIA

California Council, the American Institute of Architects
1414 K Street, Ste. 320, Sacramento, California 95814

MONTEREY DESIGN CONFERENCE

The Third Annual Monterey Design Conference, sponsored by the California Council, the American Institute of Architects, is expanding its scope to include presentations by architects and designers from Washington and Oregon, as well as California. This year, CCAIA's Monterey Design Conference encompasses all that's new in West Coast design from Baja to B.C.

The program for the Monterey Design Conference offers three exhilarating days packed full of seminars, presentations and special events.

An **Opening Presentation** and **Welcoming Wine Bash** kick off the Conference on Friday, March 26th. A generous spread of mouth-watering hors d'oeuvres and an ample selection of California wines should leave you no room for dinner.

THE BEST IN THE WEST. Famous, infamous, up-and-coming and just plain great architects from California, Oregon and Washington will give multimedia presentations of their work in a series of seminars on Saturday, March 27th. "Time Between" presentations offers an opportunity for Conference attendees to meet and exchange ideas with the presenters.

The Louis Sullivan Banks, a three-screen automated program with text and music describing eight small banks built by Louis Sullivan between 1907-1919, will be presented by **Crombie Taylor, FAIA**. These jewel-like structures, remarkably innovative and richly ornamented, illustrate Sullivan's concepts in the use of light, color, form and function.

YERBA BUENA CENTER. An in-depth analysis of the design process used to develop the Yerba Buena Center will be coordinated by **Beverly Willis, FAIA** of Willis and Associates, a member of the Yerba Buena Center joint venture design team of **Ziedler Roberts and Willis**. The Yerba Buena Center is a \$750 million proposed mixed use project of hotels, offices, a museum, a film center, a conference center and condominiums being developed in downtown San Francisco by Olympia and York.

INTERNATIONAL ARCHITECTS. **Anthony Lumsden, FAIA**, of Daniel, Mann, Johnson & Mendenhall, will coordinate a program on international projects done by West Coast architectural firms. The program will focus on the issues and problems of the international architect and the exportability of West Coast design.

ARCHITECTURE IN THE GALLERIES offers a behind-the-scenes look at two major architectural exhibits scheduled for 1982.

- Exhibit curator **Stanley Tigerman, FAIA** will preview "Ten California Architects," a collection of conceptual drawings and illustrations of constructed works to be mounted at the **LaJolla Museum of Contemporary Art**. The exhibition is partially funded by a donation from the Graham Foundation for Advanced Studies in Fine Arts.
- **Helene Fried** of the **San Francisco Art Institute** will highlight the traveling show on California architects which is being developed in conjunction with the **Institute of Architecture and Urban Studies** in New York. Funded by a grant from the National Endowment for the Arts, the exhibit is curated by Helene Fried and Lindsay Shapiro.

THE TACOMA DOME, a \$30 million sports arena and convention center, was the subject of a national design/build competition. **Jim McGranahan, FAIA**, of McGranahan Messenger Associates in Tacoma, Washington, will review the problems, costs, time commitment and logistics of a national design/build competition, and present a status report on the Tacoma Dome.

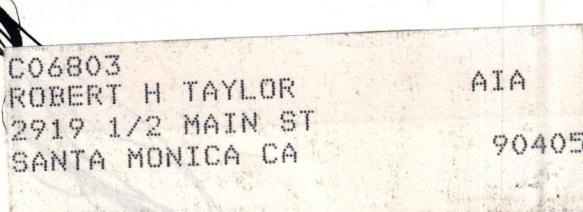
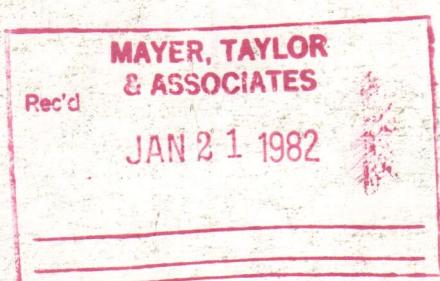
VISALIA: SOME THINGS OLD, SOME THINGS NEW. Members of the **San Joaquin Chapter, AIA** and students from **California State Polytechnic Institute, San Luis Obispo** will give a slide and display presentation of the mini-R/UDAT designed to revitalize six blocks in downtown Visalia's business district.

WEST COAST STUDENT DESIGN. A program of student projects from nine West Coast architectural schools will be coordinated by **Robert S. Harris**, Dean of the School of Architecture at the University of Southern California, and former Dean of Architecture at the University of Oregon.

DESIGN ON WHEELS. A classic car exhibition coordinated by **David C. Martin, AIA**, of Albert C. Martin and Associates, will feature more than the garden variety of Edsel. Conference attendees who wish to exhibit their classic cars should send a snapshot of the car to David C. Martin, c/o CCAIA, 1414 K Street, Suite 320, Sacramento, CA 95814. Design on Wheels will be open to the public.

The Monterey Design Conference will be held at the Monterey Convention Center in Monterey, California.
Watch your mail in January for Conference and hotel registration information.

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